



SCV VALVE
Innovative Valve Solutions®



[281] 482-4728 • www.scvvalve.com

3-Piece Trunnion Ball Valves - API 6D Full & Reduced Port

Class: 150 - 2500
Sizes: 1" - 42"



API 6D Trunnion Ball Valve
Size: 36"
Class: 600
Bore Coating: Scotchkote™ 134



SCV VALVE



SCV VALVE manufactures some of the most dependable cast and forged steel Ball Valves in the industry. Our products are manufactured and tested in accordance with respective API, ASME, and ANSI standards. With features such as double block and bleed capabilities, secondary sealant injections, and spring energized self relieving seats, the SCV design offers many features and options beneficial for oil, gas, and liquid applications making it one of the most preferred ball valves on the market.

Innovative Valve Solutions.®

For more information call us @ [281] 482-4728 or visit our website @ www.scvvalve.com

3-Piece Trunnion Ball Valves - API 6D - Full & Reduced Port

- Basic Design: API 6D
- Wall Thickness: API 6D
- Face-to-Face Dimension: API 6D
- Flange End Dimension: ANSI/ASME B16.5 [1" to 24"], ANSI/ASME B16.47 [26" & up]
- Butt-Weld End Dimension: ANSI/ASME B16.25
- Inspection & Testing: API 6D
- Fire Safe Design: API 607/BS 6755

API 6D Trunnion Ball Valve
Size: 36"
Class: 600
Bore Coating: Scotchkote™ 134



Note: Not recommended for throttling applications.

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

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Complete Product Line

Call SCV Valve today @ [281] 482-4728 for all your valve needs or visit us on the web @ www.scvvalve.com.

THRU CONDUIT GATES - SLAB & EXPANDING

Design: API 6D
 Sizes: 2" - 42"
 Class: 150 - 1500
 Standard stock.

Design: API 6A
 Sizes: 9", 11" & 13-5/8"
 Pressure: 2000, 3000, 5000
 Limited inventory availability.
 All sizes and pressure classes made to order.



PISTON CHECKS

Design: API 6D
 Sizes: 2" - 24"
 Class: 150 - 2500
 Standard stock.



GLOBES

Design: API 623
 Sizes: 2" - 24"
 Class: 150 - 2500
 Limited inventory availability.
 All sizes and pressure classes made to order.



3-PIECE TRUNNION BALLS

Design: API 6D
 Sizes: 2" - 42"
 Class: 150 - 2500
 Standard stock.

Bore Coating: Scotchkote™ 134

Design: API 6A
 Sizes: 2-1/16" - 7-1/6"
 Pressure: 2000, 3000, 5000
 Limited inventory availability.
 All sizes and pressure classes made to order.



FULL PORT SWING CHECKS

Design: API 6D
 Sizes: 2" - 36"
 Class: 150 - 2500
 Standard stock.



Exterior Coating: Epoxy

WEDGE GATES

Design: API 600
 Sizes: 2" - 48"
 Class: 150 - 2500
 Limited inventory availability. All sizes and pressure classes made to order.



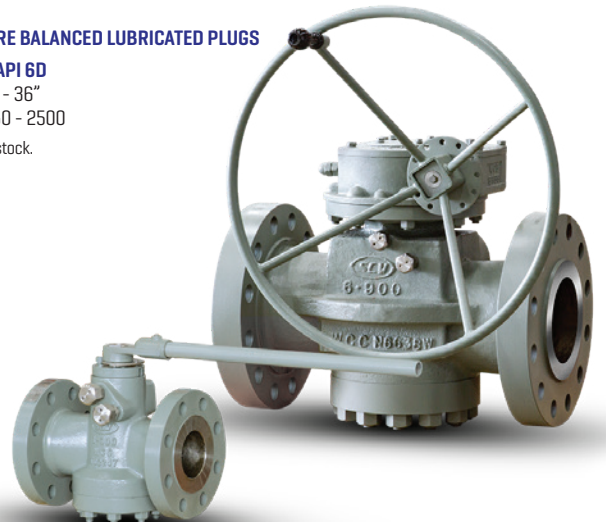
FLOATING BALL VALVES

Design: B16.34
 Sizes: 1/2" - 12"
 Class: 150 - 1500
 Standard stock.



PRESSURE BALANCED LUBRICATED PLUGS

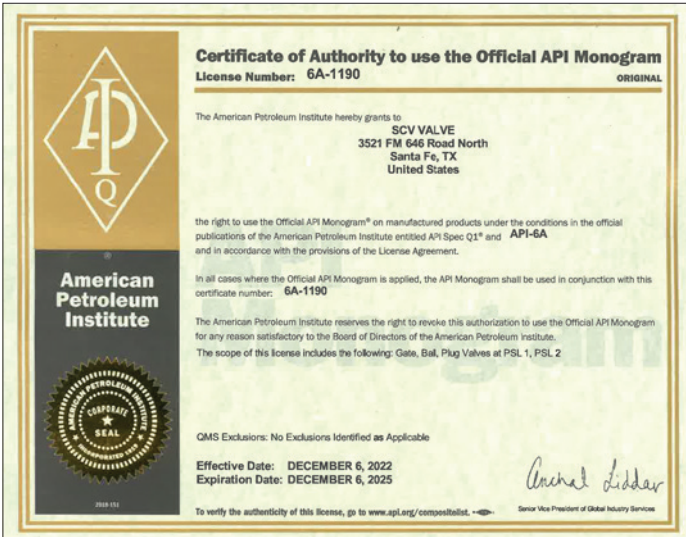
Design: API 6D
 Sizes: 2" - 36"
 Class: 150 - 2500
 Standard stock.



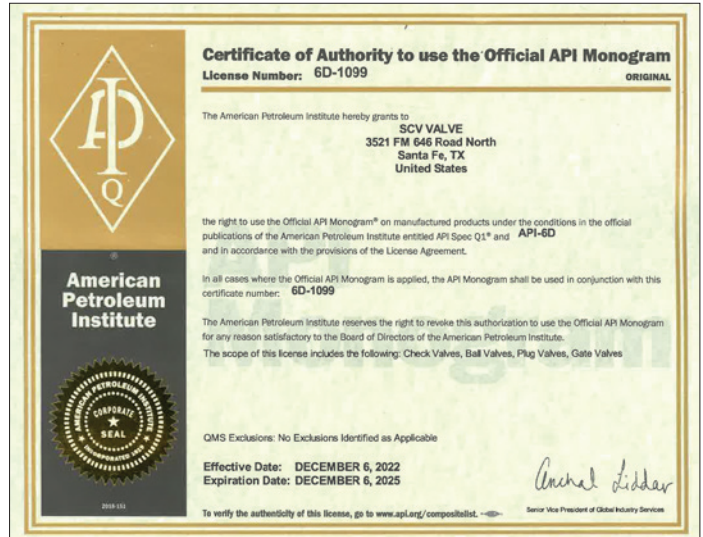
Certifications & Registrations

American Petroleum Institute (API)

API 6A Certification



API 6D Certification



ISO 9001:2015 Certificate



CE PED Certificate



Canadian Registration Number

- Alberta - OC07063.2
- British Columbia - OC07063.21
- New Brunswick - OC07063.27
- New Foundland & Laborador - OC07063.20
- Northwest Territory - OC07063.25
- Novascotia - OC07063.27
- Nunavut - OC07063.2N
- Manitoba - OC07063.24
- Ontario - OC07063.25
- Prince Edward island - OC07063.29
- Yukon - OC07063.2

SCV Figure Number Chart

Note: SCV Figure Chart is subject to change without notice.

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Valve Type	Bore Size	Class	Body/Bonnet Conf.	Body Material	Obturator Material	Ends	Operator
BAL = Trunnion Ball Valve	50 = 1/2"	01 = 150	B = Bolted	02 = A352 LCC	01 = A352 LLC + 410	A = RF x WE	/ = N/A
CEG = Compact Expanding Gate Valve	75 = 3/4"	03 = 300	L = Lug Style	06 = A351 CF8M	02 = A352 LCC + ENP	B = RTJ x WE	B = Bare Stem
DCK = Dual Plate Check Valve	01 = 1"	04 = 400	P = Pressure Seal	08 = A216 WCC	06 = A216 WCC + ENP	D = RF x RTJ	D = Dual Acting Actuator
EPG = Expanding Gate Valve	15 = 1-1/2"	06 = 600	S = Seal Weld	10 = A216 WCB	09 = A351 CF8M	E = RTJ x RF	E = Electric Actuator
FBV = Floating Ball Valve	02 = 2"	09 = 900	T = Top Entry	11 = A352 LCB	10 = A216 + CR13	J = RTJ	G = Gear
FCK = Full Port Swing Check Valve	21 = 2-1/16"	15 = 1500	U = Union	12 = A350 LF2	11 = CR13 HF	K = WE x RF	H = Handwheel
GAT = Wedge Gate Valve	25 = 2-1/2"	20 = 2000		13 = A105	12 = A105 + CR13	L = WE x RTJ	I = Linear Actuator
GLB = Globe Valve	27 = 2-9/16"	25 = 2500		16 = A217 WCG	13 = A105 + ENP	R = RF	L = Lever
PCK = Piston Check Valve	03 = 3"	30 = 3000		30 = A29 4130	14 = A694 Gr. F60 + ENP	W = WE	
PLG = Lubricated Plug Valve	31 = 3-1/8"	50 = 5000		36 = A182 316	15 = A350 LF2 + ENP		
PSG = Parallel Slide Gate Valve	37 = 3-9/16"	10 = 10000		51 = A182 F51 Duplex	16 = A216 WCC + 316		
RSB = Rising Stem Ball Valve	04 = 4"			55 = A182 F55 Duplex	17 = 17-4 PH		
SCK = Conv. Port Swing Check Valve	41 = 4-1/16"			60 = A216 WCC + Inconel 625	20 = A216 WCB + Ni65		
TCG = Slab Gate Valve	05 = 5"			87 = A487 4C	23 = A182 316L + Stellite 21		
	51 = 5-1/8"			88 = A890-4A	34 = A182 304		
	06 = 6"				35 = A182 316 HF		
	71 = 7-1/16"				36 = A182 316		
	08 = 8"				41 = A182 F6A Class 2		
	09 = 9"				42 = A182 F6A + Nitride		
	10 = 10"				51 = A182 F51 Duplex		
	23 = 10-3/8"				52 = A351 CF8M + Stellite 6		
	11 = 11"				54 = A182 F51 Duplex + CoCr-A		
	12 = 12"				59 = A352 LCC + Stellite 6		
	19 = 12-3/8"				60 = A105 + HF		
	13 = 13-5/8"				61 = A105 + Nitride + Stellite 6		
	14 = 14"				62 = A105 + Inconel 625		
	16 = 16"				69 = A350 LF2 + Tungsten Carbide		
	17 = 16-3/4"				73 = A182 410 + Tungsten Carbide		
	18 = 18"				81 = A350 LF2 + Nitride + HF		
	20 = 20"				85 = A743 CA15 + Nitride		
	22 = 22"				88 = A890-4A		
	24 = 24"				96 = A216 WCB + CR13		
	26 = 26"						
	28 = 28"						
	30 = 30"						
	32 = 32"						
	34 = 34"						
	36 = 36"						
	38 = 38"						
	40 = 40"						
	42 = 42"						
	48 = 48"						
	52 = 52"						
	56 = 56"						
	60 = 60"						

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Bore Type	Seal Material	Seat Material	Seat Insert/Overlay Material	Stem Material	Packing Material	Service
F = Full Port	A = Aflas	/ = N/A	B = Nickel Boron	/ = N/A	/ = N/A	A = Stem Extension
R = Reduced Port	B = Buna	08 = A216 WCB	D = Devlon	A = A350 LF2 + ENP	B = Braided Graphoil	C = Cryogenic
C = Conventional	E = EPDM	09 = A351 CF8M	F = PTFE	B = A105 + ENP	G = Graphite	D = *DPE x DPE
T = Regular Pattern	F = Fluorosilicone	11 = CR13 HF	G = RTFE - Glass filled	C = A182 F6a Class 2	T = Teflon	E = External Coating
U = Short Pattern	G = Graphite	13 = A105 + ENP	H = Hard Face [Stellite 6]	D = 17-4 PH	V = Viton Duck	F = Dampener
V = Venturi Pattern	H = HNBR	14 = A105 + HF	K = PCTFE	F = A182 F316		G = Geothermal
	K = Kalrez	15 = A350 LF2 + ENP	N = Nylon	G = A182 F51 Duplex		H = High Temperature
	L = Lip Seal	16 = A350 LF2 + HF	P = Peek	H = A182 F56 Duplex		I = Internal Coating
	N = Neoprene	17 = 17-4 PH	R = RTFE - Carbon Filled	I = Inconel 625		J = **SPE x DPE
	P = Polyuerethane	30 = A29 4130	T = Tungsten Carbide	J = 17-4 + QPQ		L = Lock Open Device
	R = NBR	32 = A182 316L + HF	V = Viton			P = Pipe Pups
	S = Silicone	35 = A182 316/HF	3 = 316			S = Standard Service
	T = Teflon	36 = A182 316	W = UHMWE			X = Special
	U = Floursint	41 = A182 F6a Class 2				
	V = Viton	42 = A182 F6a Class 2 + HF				
	3 = 304 Ring	51 = F51 Duplex				
	4 = 304 / Graphite	52 = A182 F51 Duplex + HF				
	5 = 316 Ring	54 = A182 F51 Duplex + CoCr-A				
	6 = 316 / Graphite	55 = F55 Duplex				
	7 = Soft Iron Ring	91 = A105/HF				

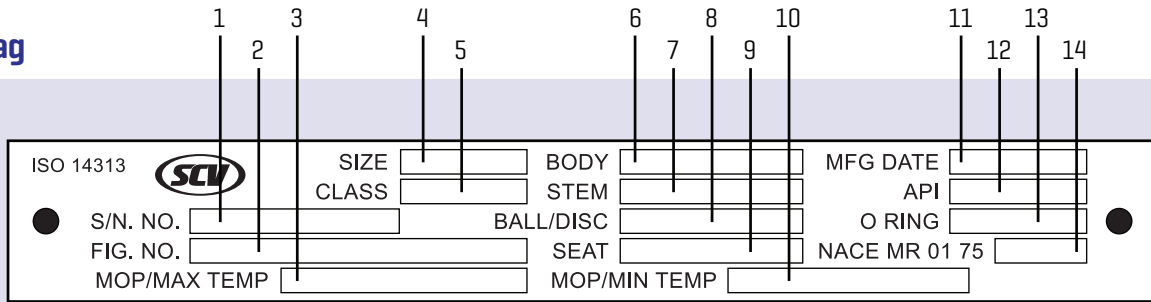
Sample Figure Numbers & Descriptions

	Figure No.	Chart Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Pressure Classes	Type	Size	Class	Body Conf.	Body	Obturator	End	Oper	Bore Type	Seal	Seat,base	Seat/Insert	Stem	Packing	Service	
TRUNNION BALL	150, 300, 600	BAL	12	06	B	12	15	R	G	F	H	15	D	A	/	S	
	12" 600 Trunnion Ball Valve, Bolted A350 LF2 Body, LF2 + ENP Obturator, RF Ends, Gear Operated, Full Bore, HNBR AED Seals, A350 LF2 + ENP Seat Base Material, Devlon Seat Inserts, A350 LF2 + ENP Stem, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant																
	900, 1500, 2500	BAL	12	15	B	12	41	J	G	F	H	41	D	C	/	S	
12" 1500 Trunnion Ball Valve, Bolted Configuration, A350 LF2 Body, A182 F6a Class 2 Obturator, RTJ Ends, Gear Operated, Full Bore, HNBR AED Seals, A182 F6a Class 2 Seat Base Material, Devlon Seat Inserts, A182 F6a Class 2 Stem, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant																	
FLOATING BALL	ALL	FBV	12	01	B	10	36	R	L	F	3	36	R	F	/	S	
	12" 150 Floating Ball Valve, Bolted Configuration, A216 WCB Body, A182 F316 Obturator, RF Ends, Lever Operated, Full Bore, A182 F316 Seat Base Material, Devlon Seat Inserts, A182 F316 Stem, Standard Service, API 608 Design, API 598 Test, NACE MR-01-75 Compliant																
DUAL PLATE WAFER CHECK	ALL	DCK	12	06	W	10	09	R	/	C	/	08	H	/	/	S	
	12" 600 Dual Plate Check Valve, Wafer Configuration, A216 WCB Body, A351 CF8M Obturator, RF Ends, Conventional Bore, A216 WCB Seat Base Material, Hardface Seat Overlay, Standard Service, API 594 Design, API 598 Test, NACE MR-01-75 Compliant																
SLAB GATE	ALL	TCG	12	06	B	08	13	R	B	F	V	13	R	D	V	S	
	12" 600 Thru Conduit Slab Gate Valve, Bolted A216 WCC Body, A105 + ENP Obturator, RF Ends, Bare Stem, Full Bore, Viton AED Seals, A105 + ENP Seat Base Material, RTFE Seat Inserts, 17-4 PH Stem, Viton Duck Packing, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant																
EXPANDING GATE	ALL	EPG	12	06	B	08	06	R	B	F	V	13	R	D	V	S	
	12" 600 Thru Conduit Expanding Gate Valve, Bolted A216 WCC Body, A216 WCC + ENP Obturator, RF Ends, Bare Stem, Full Bore, Viton AED Seals, A105 + ENP Seat Base Material, RTFE Seat Inserts, 17-4 PH Stem, Viton Duck Packing, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant																
FULL PORT SWING CHECK	ALL	FCK	12	06	B	08	16	R	/	F	V	11	V	/	/	S	
	12" 600 Full Port Swing Check Valve, Bolted A216 WCC Body, A216 WCC + 316 Obturator, RF Ends, Full Bore, Viton AED Seals, CR13 HF Seat Base Material, Viton Seat Inserts, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant																
PISTON CHECK	150, 300, 600, 900	PCK	12	06	B	08	61	R	/	C	V	14	H	/	/	S	
	12" 600 Piston Check Valve, Bolted A216 WCC Body, A105 + Nitride + HF Obturator, RF Ends, Conventional Bore, Viton AED Seals, A105 Seat Base Material, Hardface Seat Overlay, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant																
	1500, 2500	PCK	12	15	B	08	61	R	/	C	V	41	H	/	/	S	
12" 1500 Piston Check Valve, Bolted A216 WCC Body, A105 + Nitride + HF Obturator, RF Ends, Conventional Bore, Viton AED Seals, A182 F6a Class 2 Seat Base Material, Hardface Seat Overlay, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant																	
LUBRICATED PLUG	ALL	PLG	12	06	B	10	84	R	L	C	V	/	/	/	G	S	
	12" 600 Lubricated Plug Valve, Bolted A216 WCC Body, A743 CA15 Obturator, RF Ends, Lever Operated, Conventional Bore, Viton AED Seals, Standard Service, API 6D Design and Test, NACE MR-01-75 Compliant																
WEDGE GATE	ALL	GAT	12	06	B	10	7	R	H	C	4	14	H	C	G	S	
	12" 600 Wedge Gate Valve, Bolted A216 WCC Body, A216 WCC + Hardface Obturator, RF Ends, Handwheel Operated, Conventional Bore, 304 + Graphite Gasket, A105 Seat Base Material, Hardface Seat Overlay, A182 F6a Class 2 Stem, Graphite Packing, Standard Service, API 600 Design, API 598 Test, NACE MR-01-75 Compliant																
GLOBE	ALL	GLB	12	06	B	10	60	R	H	C	4	14	H	C	G	S	
	12" 600 Globe Valve, Bolted A216 WCC Body, A105 + Hardface Obturator, RF Ends, Handwheel Operated, Conventional Bore, 304 + Graphite Gasket, A105 Seat Base Material, Hardface Seat Overlay, A182 F6a Class 2 Stem, Graphite Packing, Standard Service, API 623 Design, API 598 Test, NACE MR-01-75 Compliant																

Note: Subject to change without notice.
Control #: MSF 3.5-16 rev 17

Valve ID Tag & Valve Markings Identification

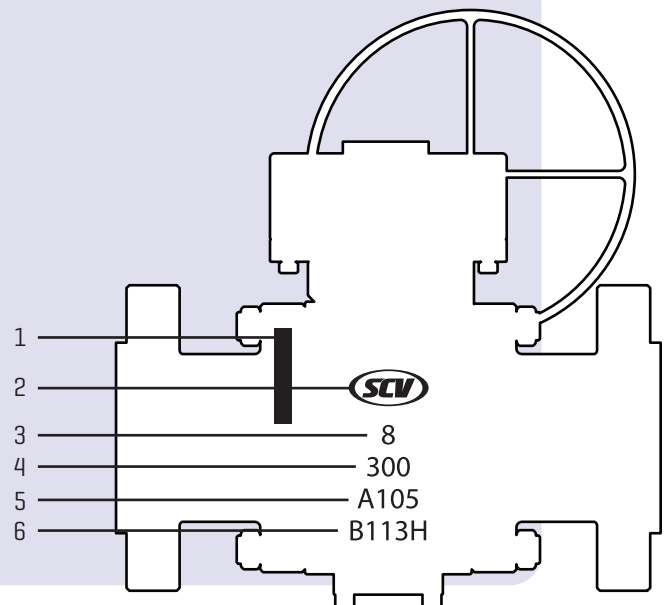
Valve ID Tag



No.	Figure Number Code	Description
1	Serial Number	Identifies certified manufacturers serial number
2	Figure Number	Identifies the detailed valve configuration (valve type, bore size, pressure class, materials, etc.)
3	MOP/Max. Temp.	Identifies the maximum operating pressure in PSI and maximum operating temperature in Fahrenheit
4	Size	Identifies bore size
5	Pressure Class	Identifies pressure classifications per API requirements
6	Body Material	Identifies body metal material composition (A105, WCB, F51, CF8M, etc.)
7	Stem Material	Identifies stem material composition (A105, 410SS, 17-4pH, etc.)
8	Ball/Disc Material	Identifies ball/disc material composition (A105, 316SS, ENP, etc.)
9	Seat Material	Identifies seat material composition (PEEK, Teflon, Nylon, etc.)
10	MOP/Min. Temp.	Identifies the maximum operating pressure in PSI and minimum operating temperature in Fahrenheit
11	Manufacturing Date	Identifies the date the valve manufacturing completion date
12	API Conformance	Identifies API conformance (600, 6D, 6A, etc.)
13	O Ring	Identifies the O Ring material composition (Viton, Viton GLT, etc.)
14	NACE MR 01 75	Identifies corrosion resistance

Valve Markings

No.	Valve ID Components
1	Tag
2	Brand
3	Size
4	Pressure Class
5	Body Material
6	Heat Number



Note: SCV reserves the right to modify our products for improvement without prior notice.



3-Piece Trunnion Ball Valves - API 6D Full & Reduced Port Class: 150 - 2500/Sizes: 1" - 42"



Design and Manufacturing Standards	
Basic Design	API 6D
Wall Thickness	API 6D
Face-to-Face Dimension	API 6D
Flange End Dimension	ANSI/ASME B16.5 (1" to 24") ANSI/ASME B16.47 (26" & up)
Butt-Weld End Dimension	ANSI/ASME B16.25
Inspection & Testing	API 6D
Fire Safe Design	API 607/BS 6755



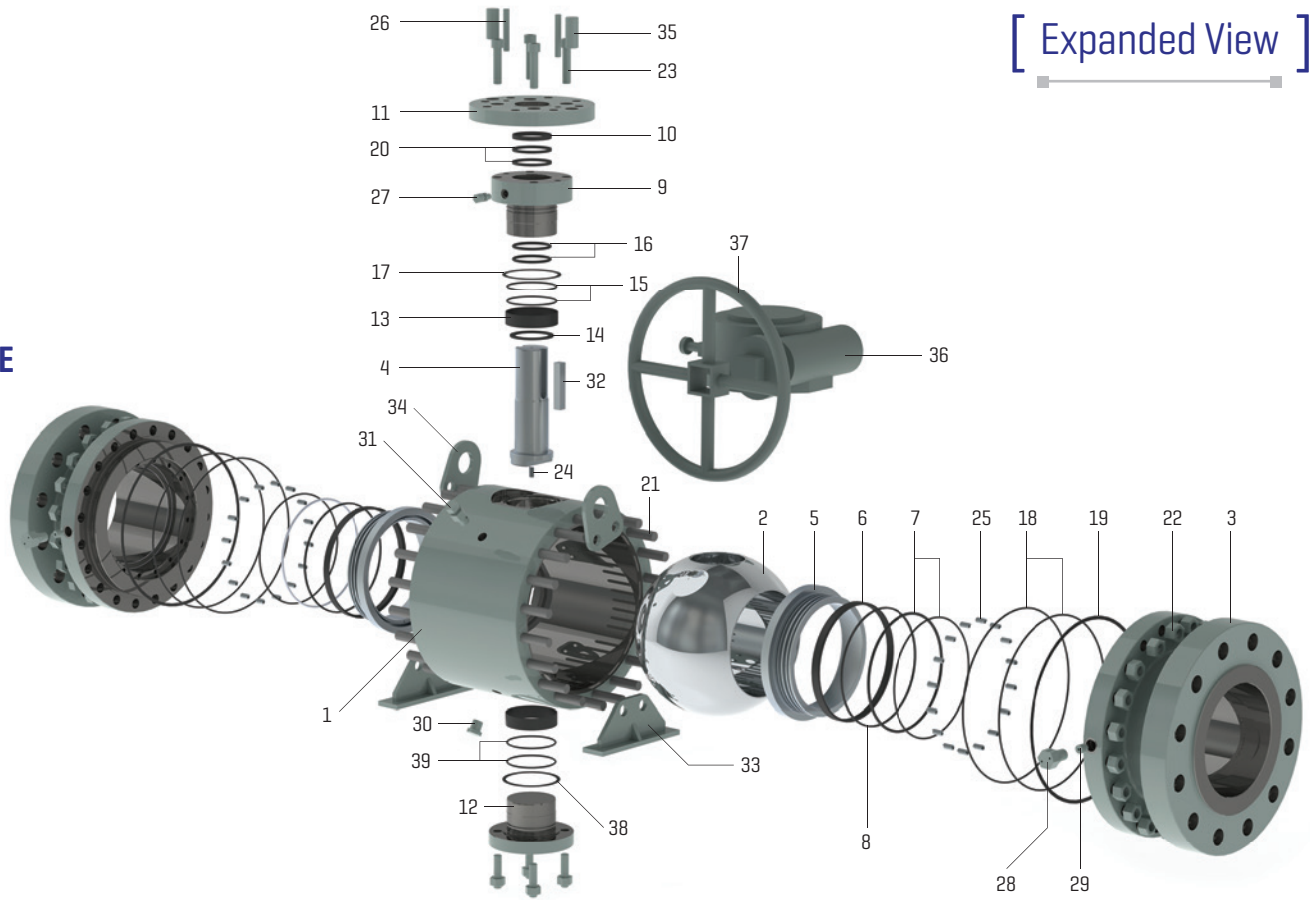
API 6D Trunnion Ball Valve
Size: 36"
Class: 600
Bore Coating: Scotchkote™ 134

3-Piece Trunnion Ball Valves - API 6D

Model E & I: Full & Reduced Port

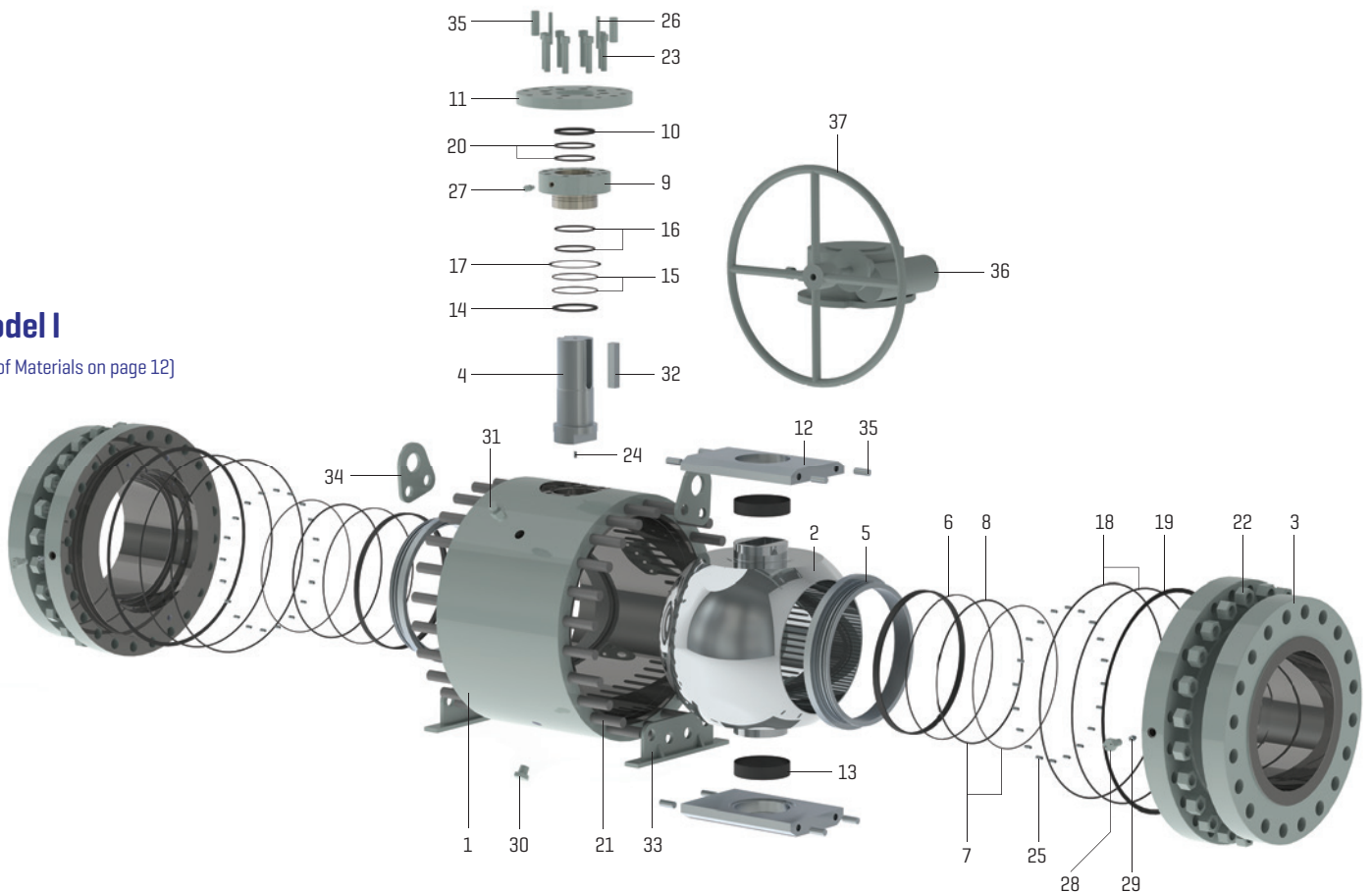
[Expanded View]

Model E



Model I

[Bill of Materials on page 12]



3-Piece Trunnion Ball Valves - API 6D

Model E: Full & Reduced Port

[Bill of Materials]

No	Name Of Part	Materials	
1	Body	A350 LF2	A182 F316
2	Ball	A350 LF2+ENP	A182, F316, A351, 410 SS
3	Adapter	A350 LF2	A182, F316, A351
4	Stem	A182 F6A Class 2	316 SS, 17-4 PHSS, 410 SS
5	Seat Ring	A350 LF2+ENP	316 SS, 410 SS
6	Seat Insert	Devlon, Nylon, PEEK, RTFE	
7	Seat O-ring [2]	Low Temp HNBR /Viton AED	
8	Seat Seal	Graphite	
9	Gland	A350 LF2	316 SS, 410 SS
10	Gland Ring	A350 LF2	316 SS, 410 SS
11	Mounting Plate	A350 LF2	316 SS, 410 SS
12	Trunnion	A350 LF2	316 SS, 410 SS
13	Trunnion Bearing [2]	PTFE, Carbon Steel	PTFE, 316 SS
14	Thrust Washer	PTFE, Carbon Steel	PTFE, 316 SS
15	Gland O-ring [2]	Low Temp HNBR /Viton AED	
16	Stem O-ring [2]	Low Temp HNBR /Viton AED	
17	Gland Gasket	Graphite	
18	Adapter O-ring [2]	Low Temp HNBR /Viton AED	
19	Adapter Gasket	Graphite	
20	Mounting Plate Gasket [2]	Graphoil	
21	Stud Bolt	A320 L7M	A193 B8
22	Hex Nut	A194 7M	A194 8
23	SHCS	A320 L7M	A193 B8
24	Anti-Static Spring	Inconel X-750	
25	Seat Spring	Inconel X-750	
26	Dowel Pin	Carbon Steel	Stainless Steel
27	Grease Fitting	316 SS	
28	Grease Fitting, BGH	316 SS	
29	Ball Check	Stainless Steel	
30	NPT Plug	316 SS	
31	Vent Fitting	316 SS	
32	Stem Key	Carbon Steel	Stainless Steel
33	Foot Plate	Carbon Steel	Stainless Steel
34	Lift Plate	Carbon Steel	Stainless Steel
35	Body Dowel Pin	Carbon Steel	Stainless Steel
36	Gear Operator	Ductile Iron, Carbon Steel Worm Gear	
37	Handwheel	Carbon Steel, Ductile Iron	
38	Trunnion Gasket	Graphite	
39	Trunnion O-ring [2]	Low Temp HNBR /Viton AED	

Note: Materials also available in F321, F347, F51, F53, monel, inconel, incolloy and hastelloy. Metal-to-metal seated ball valve designs are available upon request.

Note: Additional materials available upon request.

*= Used only with bolted body construction.

3-Piece Trunnion Ball Valves - API 6D

Model I: Full & Reduced Port

[Bill of Materials]

No	Name Of Part	Materials	
1	Body	A350 LF2	A182 F316
2	Ball	A350 LF2+ENP	A182, F316, A351, 410 SS
3	Adapter	A350 LF2	A182, F316, A351
4	Stem	A182 F6A Class 2	316 SS, 17-4 PHSS, 410 SS
5	Seat Ring	A350 LF2+ENP	316 SS, 410 SS
6	Seat Insert	Devlon, Nylon, PEEK, RTFE	
7	Seat O-ring [2]	Low Temp HNBR /Viton AED	
8	Seat Seal	Graphite	
9	Gland	A350 LF2	316 SS, 410 SS
10	Gland Ring	A350 LF2	316 SS, 410 SS
11	Mounting Plate	A350 LF2	316 SS, 410 SS
12	Trunnion	A350 LF2	316 SS, 410 SS
13	Trunnion Bearing [2]	PTFE, Carbon Steel	PTFE, 316 SS
14	Thrust Washer	PTFE, Carbon Steel	PTFE, 316 SS
15	Gland O-ring [2]	Low Temp HNBR /Viton AED	
16	Stem O-ring [2]	Low Temp HNBR /Viton AED	
17	Gland Gasket	Graphite	
18	Adapter O-ring [2]	Low Temp HNBR /Viton AED	
19	Adapter Gasket	Graphite	
20	Mounting Plate Gasket	Graphoil	
21	Stud Bolt	A320 L7M	A193 B8
22	Hex Nut	A194 7M	A194 8
23	SHCS	A320 L7M	A193 B8
24	Anti-Static Spring	Inconel X-750	
25	Seat Spring	Inconel X-750	
26	Dowel Pin	Carbon Steel	Stainless Steel
27	Grease Fitting	316 SS	
28	Grease Fitting, BGH	316 SS	
29	Ball Check	Stainless Steel	
30	NPT Plug	316 SS	
31	Vent Fitting	316 SS	
32	Stem Key	Carbon Steel	Stainless Steel
33	Foot Plate	Carbon Steel	Stainless Steel
34	Lift Plate	Carbon Steel	Stainless Steel
35	Trunnion Dowel Pin	Carbon Steel	Stainless Steel
36	Gear Operator	Ductile Iron, Carbon Steel Worm Gear	
37	Handwheel	Carbon Steel, Ductile Iron	

Note: Materials also available in F321, F347, F51, F53, monel, inconel, incolloy and hastelloy. Metal-to-metal seated ball valve designs are available upon request.

Seal & Seat Pressure Temperature Chart

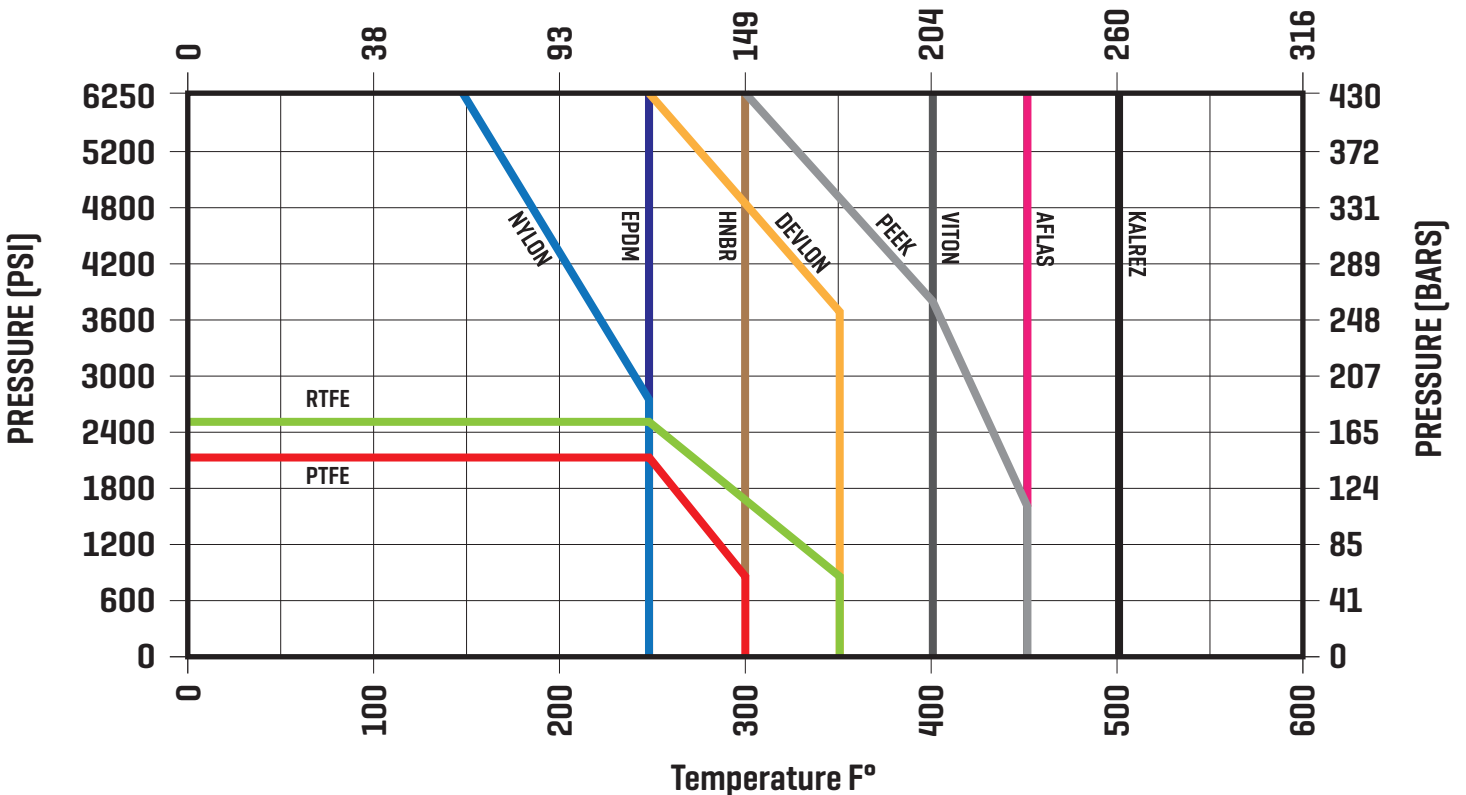
This chart depicts pressure and temperature ratings for common plastics and elastomers used in SCV Valve products.

SCV VALVE SOFT GOOD CHEMICAL COMPATIBILITY

	SEAL MATERIAL			SEAT MATERIAL			
	Viton	HNBR	Kalrez	RTFE	Nylon	Devlon	PEEK
Amines	X	X	●	●	X	X	●
Ammonia	X	X	●	●	●	●	●
Butane	●	●	●	●	●	●	●
Carbon Dioxide	●	●	●	●	●	●	●
Crude Oil	●	●	●	●	●	●	●
Ethane	●	●	●	●	X	X	●
Ethylene	●	●	●	●	●	●	●
Glycol	●	●	●	●	●	X	●
Hydrocarbon	●	●	●	●	●	●	●
Hydrogen	●	●	●	●	●	●	●
Jet Fuel	*	*	●	●	X	X	●
Methane	●	●	●	●	●	●	●
Natural Gas	●	●	●	●	●	●	●
Nitrogen	●	●	●	●	●	●	●
Propane	●	●	●	●	●	●	●
Propylene	●	X	●	●	●	●	●

* Viton OK for JP-3/4/5/6/8/9/10. * HNBR OK for JP-3/4/5/6.

PRESSURE TEMPERATURE CHART



3-Piece Trunnion Ball Valves - API 6D

Full & Reduced Port Design Features & Applications

The SCV 3-piece forged body Trunnion Mounted ball valves are designed to meet API's highest industry standards. SCV manufactures these trunnion ball valves in bolted body construction to meet the most stringent requirements for industries such as oil, gas, gathering, transmission, distribution, storage, LNG and Petrochemical.

Seal Feature

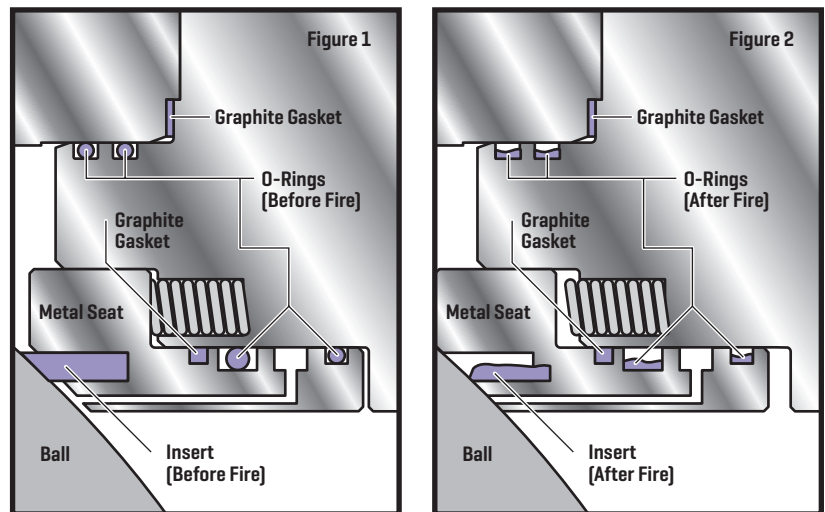
The SCV trunnion mounted ball valves are produced with spring loaded seats. This spring load keep the seats in constant contact with the ball, even in the absence of line pressure and makes a very effective seal at low line pressure. As the pressure increases the seat ring is forced onto the ball and a tight seal becomes effective. The higher the line pressure the greater the force exerted by the seat against the ball.

Self Lubrication

SCV uses seat insert material that provides self lubrication . The seat insert material choices consist of PTFE, Nylon, Devlon, Peek, or any other low friction material that that may be required to meet the application. The self-lubrication insert materials help support the predictable operating torque.

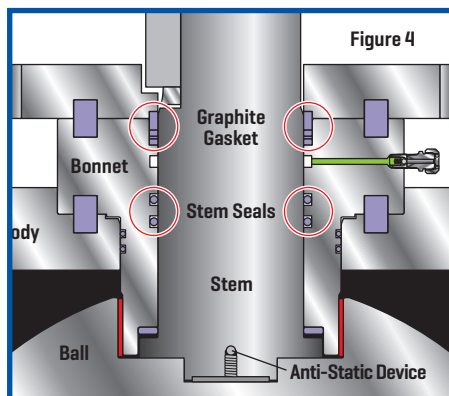
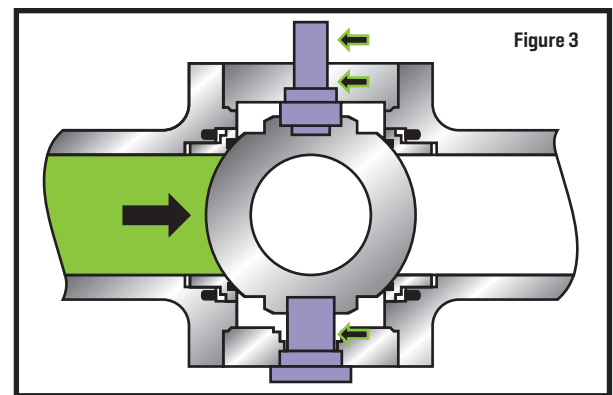
Fire Safe Construction with Secondary Metal Seat

SCV ball valves have been fire tested and can be supplied to API 6FA and API 607. The soft seat inserts, irrespective of their materials, will possibly fail when subjected to fire conditions. SCV provides a fire-safe design which may substantially prevent leakages through seals when damaged by fire. The function of the seats before and after the fire test are as shown. If the seat inserts are destroyed, a metal to metal seal is formed between seat and ball. The seat to body graphite seals, graphite stem packing, and graphite gasket end closures are designed to resist high temperature and will remain undamaged. **(Figures 1 & 2)**



Trunnion Mounting

Trunnion mounted TEFLON coated bearings on the stems absorb the thrust from line pressure, preventing excess friction between the ball and seats, so even at full rated working pressure, operating torque stays low. **(Figure 3)**



Anti-Static Device

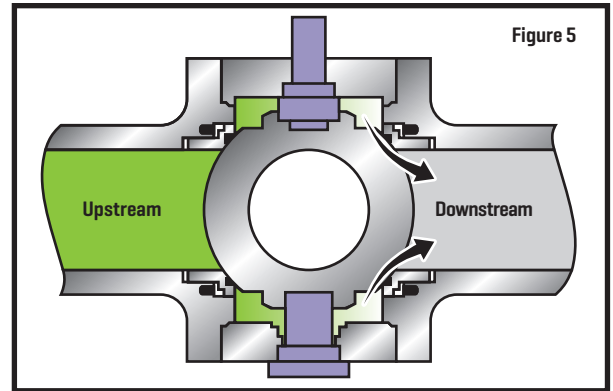
The ball/spring assembly provided at the stem allows the static charges to be discharged to the piping. In this way, an electrostatic charging of the ball is eliminated. **(Figure 4)**

Blow Out Proof Stem with Stem Seals

The stem has been designed with a lower flange. The valve body bonnet retains the stem in place and prevent any possible blowout. The stem is sealed with 2 orings, this feature allows for the stem packing to be replaced while the valve is in line and under pressure. **(Figure 4)**

Single Piston Effect (SPE) - Self Relieving Seats

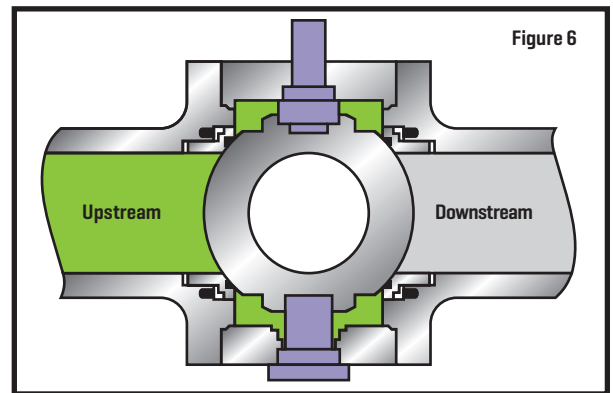
With the ball in the closed position, media pressure builds on the upstream side of the ball. This pressure forces the upstream seat ring against the ball for a tight seal. With only spring pressure sealing the downstream side, excess body cavity pressure pushes the downstream seat rings away from the ball relieving overpressure in the body cavity. This seat arrangement meets **Block & Bleed** requirements. Single Piston Effect (SPE) seat rings are “self-relieving.” (Figure 5)



Double Piston Effect (DPE)

With the ball in the closed position and pressure from a single source, in the event the upstream seat fails, pressure will increase in the body cavity. The cavity pressure activates the downstream seat's double piston effect creating a second seal on the ball. This seat arrangement meets **Double Isolation & Bleed** requirements. (Figure 6)

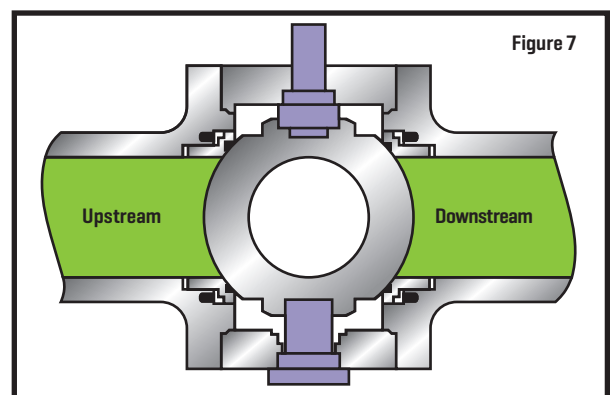
Definition of Double Isolation and Bleed (DIB): A single valve with two seating surfaces, each of which, in the closed position, provides a seal against pressure from a single source, with a means of venting/bleeding the cavity between the seating surfaces. This feature can be provided in one direction or both directions. (Figure 6)



Double Block and Bleed (DBB)

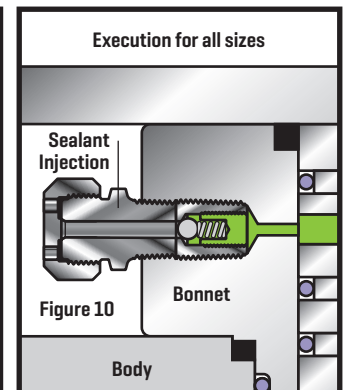
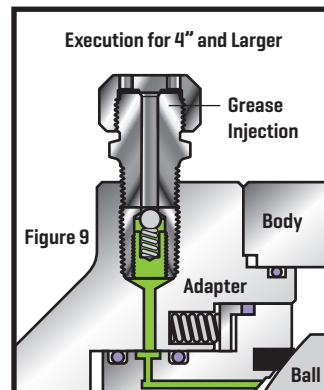
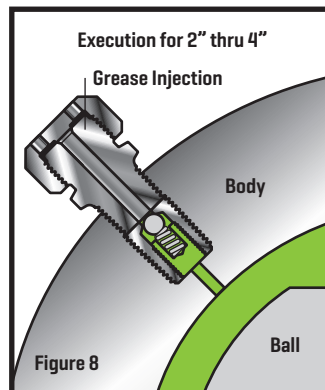
The Double Block and Bleed feature is offered with both seat ring configurations (SPE & DPE). When the ball is closed, pressure is “blocked” from the body cavity by the pressure activated seats. The body cavity can then be vented/bled. (Figure 7)

Definition of Double Block and Bleed: A single valve with two seating surfaces that, in the closed position, provides a seal against pressure from both ends of the valve with a means of venting/bleeding the cavity between the seating surfaces. (Figure 7)



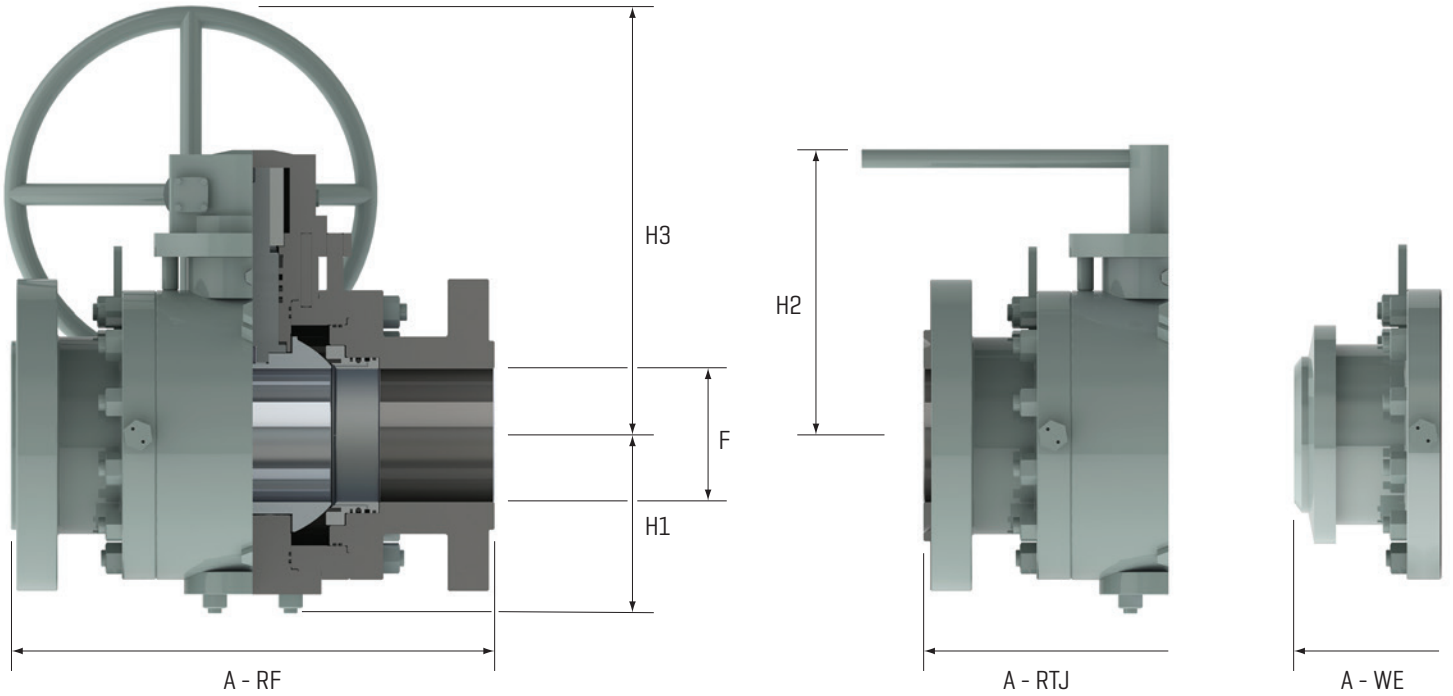
Sealant Fitting

Sealant lubrication fittings are standard on this SCV design. In the event of seat insert or stem seal damage, leakage can occur. Emergency sealant/grease injection can save the integrity of the valve by incorporating a seal around the stem or between the seat and the ball until properly serviced. These fittings also act as a lubrication port for regular maintenance. (Figures 8, 9 & 10)



3-Piece Trunnion Ball Valves Full Port - API 6D

Size: 2" - 42" Class: 150



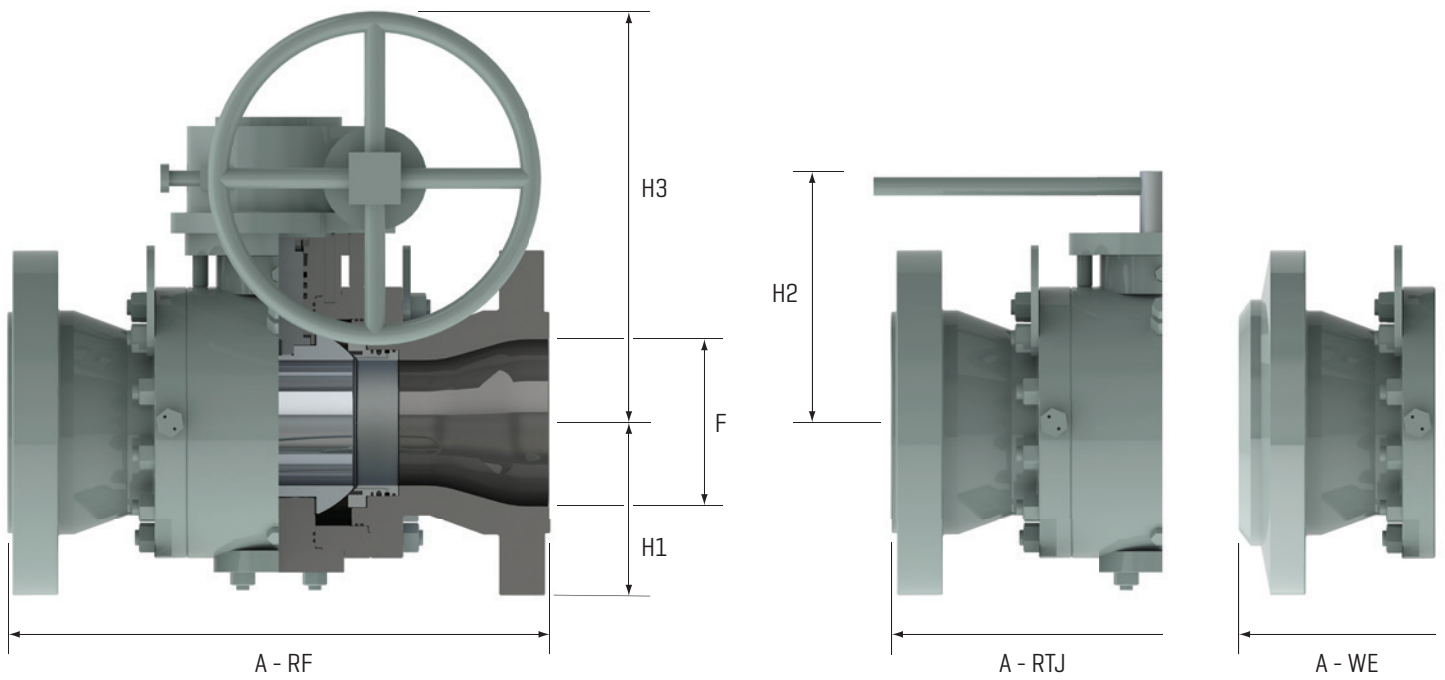
CLASS 150	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights
			F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG
	IN	2*	2.00	7.00	/	8.50	3.85	6.82	11.93	●		46
	MM	50	51	178	/	216	98	173	303			21
	IN	3*	3.00	8.00	/	11.125	4.73	7.72	12.83	●		77
	MM	80	76	203	/	283	120	196	326			35
	IN	4*	4.00	9.00	/	12.00	5.80	8.93	14.00	●		119
	MM	100	102	229	/	305	147	227	356			54
	IN	6	6.00	15.50	/	18.00	7.68	/	19.36	●		336
	MM	150	152	394	/	547	195	/	492			152
	IN	8	8.00	18.00	/	20.50	9.55	/	20.40	●		545
	MM	200	203	457	/	521	234	/	518			247
	IN	10	10.00	21.00	/	22.00	11.48	/	25.11	●		897
	MM	250	254	533	/	559	293	/	638			407
	IN	12	12.00	24.00	/	25.00	13.05	/	27.20	●		1338
	MM	300	305	610	/	635	331	/	691			607
	IN	14	13.25	27.00	/	30.00	14.08	/	31.45	●		1787
	MM	350	337	686	/	762	358	/	799			811
	IN	16	15.25	30.00	/	33.00	14.69	/	33.28		●	2500
	MM	400	387	762	/	838	373	/	845			1134
	IN	18	17.25	34.00	/	36.00	16.52	/	36.55		●	3508
	MM	450	438	864	/	914	420	/	928			1591
	IN	20	19.25	36.00	/	39.00	17.88	/	37.64		●	4528
	MM	500	489	914	/	991	454	/	956			2054
	IN	24	23.25	42.00	/	45.00	21.19	/	37.35		●	6821
	MM	600	591	1067	/	1143	538	/	949			3094
	IN	26	25.00	45.00	/	49.00	34.83	/	55.91		●	10476.4
	MM	650	635	1143	/	1247	885	/	1420			4762
	IN	28	27.00	49.00	/	53.00	36.40	/	58.36		●	11974.6
	MM	700	686	1247	/	1346	925	/	1482			5443
	IN	30	29.00	51.00	/	55.00	38.77	/	61.95		●	14966.6
	MM	800	737	1295	/	1397	985	/	1574			6803
	IN	36	34.50	60.00	/	68.00	44.54	/	70.10		●	24945.8
	MM	900	876	1524	/	1727	1131	/	1781			11339
	IN	42	34.50	73.00	/	82.00	44.54	/	70.10		●	24945.8
	MM	1050	876	1854	/	2083	1131	/	1781			11339

* = Lever operated

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

3-Piece Trunnion Ball Valves Reduced Port - API 6D

Size: 3" - 42" Class: 150



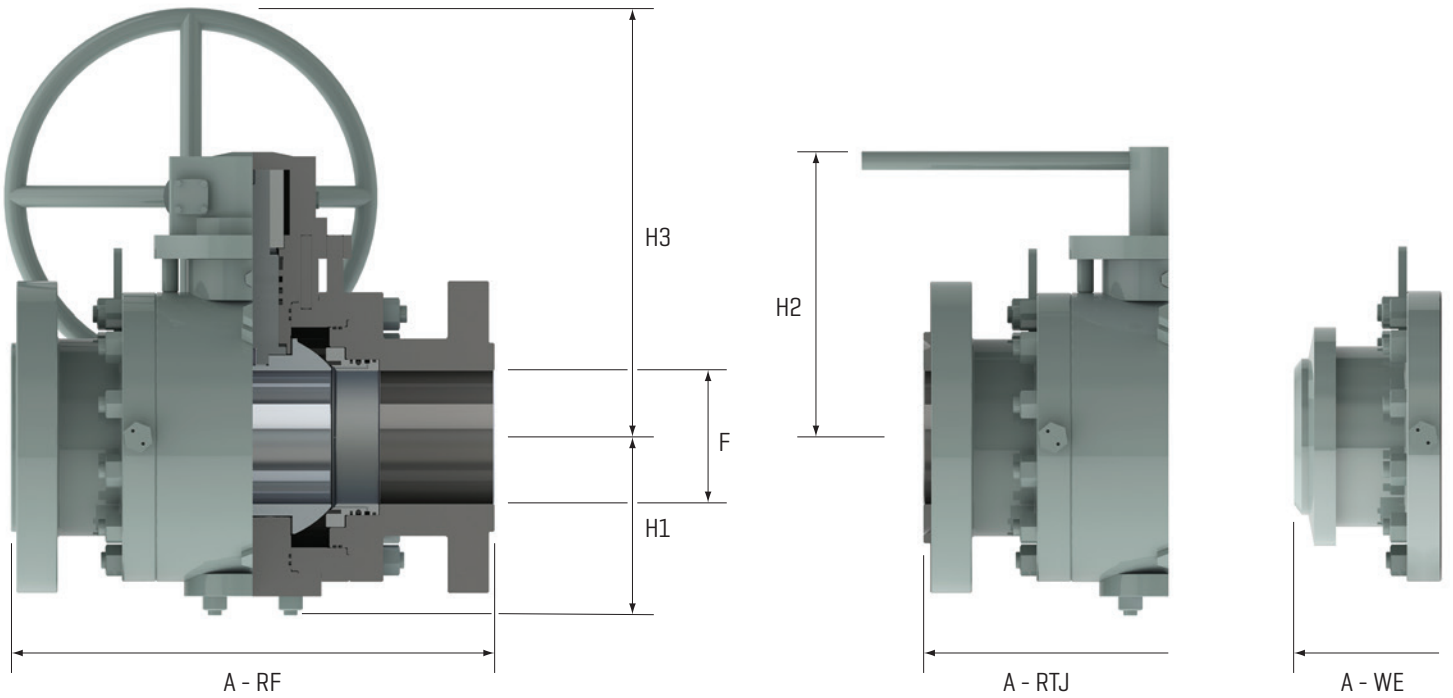
CLASS 150	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights	BW Weights
			F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG	LBS/KG
	IN	3 x 2*	2.00	8.00	/	11.125	5.22	7.28	9.68	●		48.4	33
	MM	80 x 50	51	203	/	283	133	185	246			22	15
	IN	4 x 3*	3.00	9.00	/	12.00	6.34	9.47	11.87	●		88	74.8
	MM	100 x 80	76	229	/	305	161	241	301			40	34
	IN	6 x 4*	4.00	15.50	/	18.00	7.28	10.34	12.74	●		149.9	118.8
	MM	150 x 100	102	394	/	457	185	263	324			68	54
	IN	8 x 6	6.00	18.00	/	20.50	9.47	13.29	15.59	●		598.4	497.2
	MM	200 x 150	152	457	/	521	541	338	396			272	226
	IN	10 x 8	8.00	21.00	/	22.00	11.16	15.90	18.30	●		847	748
	MM	250 x 200	203	533	/	559	283	404	465			385	340
	IN	12 x 10	10.00	24.00	/	25.00	13.23	17.84	20.98	●		1496	1346.4
	MM	300 x 250	254	610	/	635	336	453	533			680	612
	IN	14 x 12	12.00	27.00	/	30.00	14.98	20.00	23.04	●		1845.8	1645.6
	MM	350 x 300	305	686	/	762	380	508	585			839	748
	IN	16 x 14	13.25	30.00	/	33.00	16.60	22.30	25.45		●	2593.8	2343
	MM	400 x 350	337	762	/	838	422	566	646			1179	1065
	IN	18 x 16	15.25	34.00	/	36.00	18.39	24.05	28.05		●	3440.8	3093.2
	MM	450 x 400	387	864	/	914	467	611	712			1564	1406
	IN	20 x 18	17.25	36.00	/	39.00	20.05	27.05	31.10		●	7139	4439.6
	MM	500 x 450	438	914	/	991	509	687	790			3245	2018
	IN	24 x 20	19.25	42.00	/	45.00	21.90	28.80	33.90		●	5588	5137
	MM	600 x 500	489	1067	/	1143	556	732	861			2540	2335
	IN	30 X 24	23.25	51.00	/	55.00	21.06	/	26.1		●	7562	6731
	MM	600 x	591	1295	/	1397	535	/	663			3430	3053
	IN	36 X 30	28.97	60.00	/	68.03	27.75	/	30.59		●	14220	12655
	MM	900 x 800	736	1524	/	1728	705	/	777			6450	5740
	IN	42 X 36	34.48	73.00	/	82.00	37.00	/	43.03		●	30820	27430
	MM	1050 x 900	876	1854	/	2083	940	/	1093			13980	12442

* = Lever operated

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

3-Piece Trunnion Ball Valves Full Port - API 6D

Size: 2" - 42" Class: 300



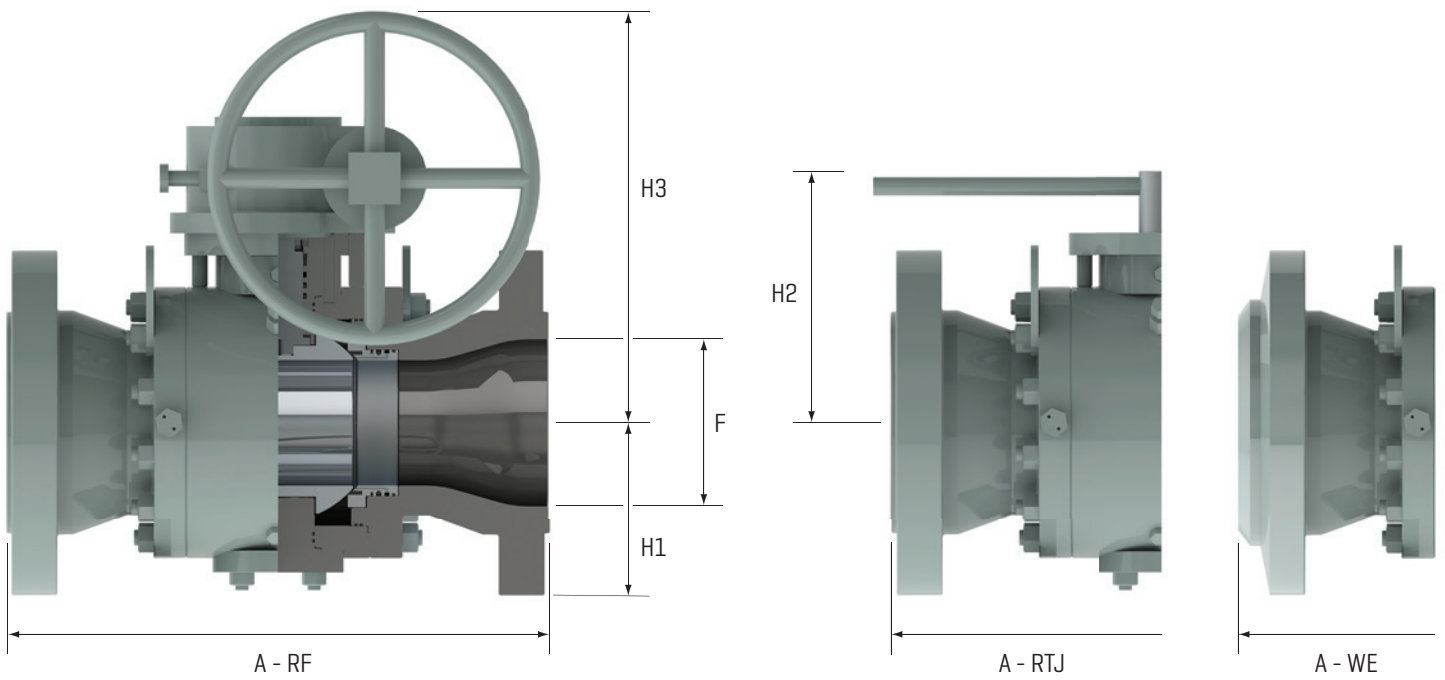
CLASS 300	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights
	IN	MM	F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG
	2*	50	2.00	8.50	/	8.50	3.85	6.82	11.93	●		53
			51	216	/	216	98	/	303			24
	3*	80	3.00	11.12	/	11.125	4.73	7.75	12.83	●		100
			76	283	/	283	120	/	326			45
	4*	100	4.00	12.00	/	12.00	5.80	8.93	14.00	●		156
			102	305	/	305	147	/	356			71
	6	150	6.00	15.88	/	15.88	8.18	/	19.36	●		372
			152	403	/	403	208	/	492			169
	8	200	8.00	19.75	/	20.50	9.46	/	20.40	●		619
			203	502	/	521	240	/	518			281
	10	250	10.00	22.38	/	22.00	11.48	/	25.49	●		1005
			254	568	/	559	292	/	647			456
	12	300	12.00	25.50	/	25.00	13.05	/	30.20	●		1475
			305	648	/	635	331	/	767			669
	14	350	13.25	30.00	/	30.00	14.08	/	31.45	●		2075
			337	762	/	762	358	/	799			941
	16	400	15.25	33.00	/	33.00	14.81	/	33.28		●	2885
			387	838	/	838	376	/	845			1309
	18	450	17.25	36.00	/	36.00	16.88	/	36.56		●	4150
			438	914	/	914	429	/	929			1882
	20	500	19.25	39.00	/	39.00	18.00	/	37.65		●	5004
			489	991	/	991	457	/	956			2270
	24	600	23.25	45.00	/	45.00	21.50	/	41.77		●	8072
			591	1143	/	1143	546	/	1061			3661
	26		25.00	49.00	/	49.00	34.83	50.00	55.91		●	11675.4
			635	1245	/	1245	885	1270	1420			5307
	28		27.00	53.00	/	53.00	36.40	52.45	58.36		●	13970
			686	1346	/	1346	925	1332	1482			6350
	30		29.00	55.00	/	55.00	38.77	55.75	61.95		●	16964.2
			737	1397	/	1397	985	1416	1574			7711
	36		34.50	68.00	/	68.00	44.54	63.90	70.10		●	25944.6
			876	1727	/	1727	1727	1623	1781			11793
	42		40.23	82.00	/	82.00	37.36	/	43.26		●	35935
			1022	2083	/	2083	949	/	1099			16300

* = Lever operated

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

3-Piece Trunnion Ball Valves Reduced Port - API 6D

Size: 3" - 42" Class: 300



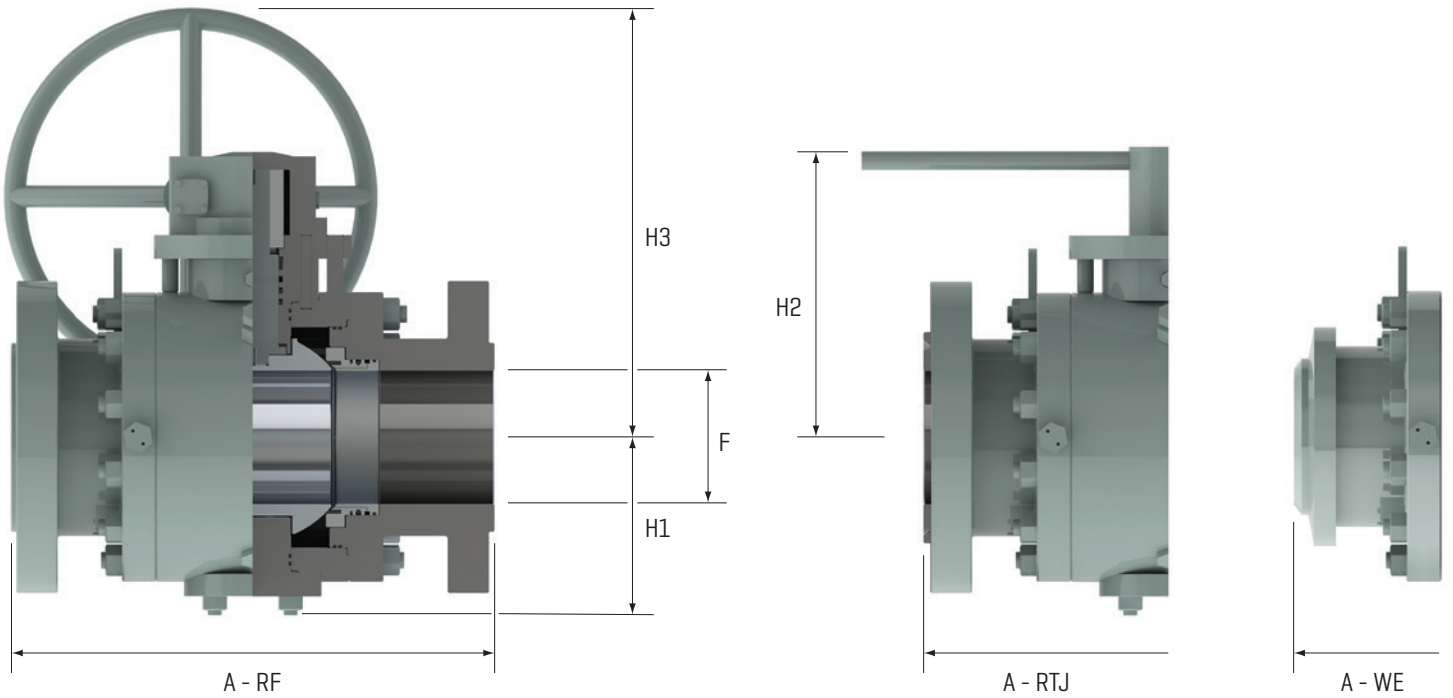
CLASS 300	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights	BW Weights
	IN	MM	F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG	LBS/KG
	3 x 2*	80 x 50	2.00	11.125	11.75	11.125	5.22	7.28	9.68	●		68.2	52.8
			51	283	299	283	133	185	279			31	24
	4 x 3*	100 x 80	3.00	12.00	12.625	12.00	6.34	9.47	11.87	●		118.8	88
			76	305	321	305	161	241	301			54	40
	6 x 4	150 x 100	4.00	15.875	16.50	15.88	7.28	10.34	12.74	●		217.8	178.2
			102	403	419	403	185	263	324			99	81
	8 x 6	200 x 150	6.00	19.75	20.375	19.75	9.47	13.29	15.59	●		646.8	558.8
			152	502	518	502	241	338	396			294	254
	10 x 8	250 x 200	8.00	22.375	23.00	22.00	11.16	15.90	18.30	●		897.6	776.6
			203	568	584	559	283	404	465			408	353
	12 x 10	300 x 250	10.00	25.50	26.125	25.00	13.23	17.84	20.98	●		1645.6	1445.4
			254	648	664	635	336	453	533			748	657
	14 x 12	350 x 300	12.00	30.00	30.625	30.00	14.98	20.00	23.04	●		1995.4	1795.2
			305	762	778	762	380	508	585			907	816
	16 x 14	400 x 350	13.25	33.00	33.625	33.00	16.60	22.30	25.45		●	2893	2644.4
			337	838	854	838	422	566	646			1315	1202
	18 x 16	450 x 400	15.25	36.00	36.625	36.00	18.39	24.05	28.05		●	3940.2	3542
			387	914	930	914	467	611	713			1791	1610
	20 x 18	500 x 450	17.25	39.00	39.75	39.00	20.05	27.05	31.10		●	5288.8	4789.4
			438	991	1010	991	509	687	790			2404	2177
	24 x 20	600 x 500	19.25	45.00	45.875	43.00	21.90	28.80	33.90		●	5915.8	5337.2
			489	1143	1165	1092	556	732	861			2698	2426
	30 x 24	800 x 600	23.25	55	55.98	55	23.7	/	26.53		●	10207	9187
			591	1397	1422	1397	602	/	674			4630	4167
	36 x 30	900 x 800	28.97	68.00	69.13	68.00	28.3	/	84.09		●	18365	16345
			736	1727	1756	1727	719	/	866			8330	7414
	42 x 36	1050 x 900	34.48	82.00	/	82.00	37.36	/	43.26		●	35935	32701
			876	2083	/	2083	949	/	1099			16300	14833

* = Lever operated

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

3-Piece Trunnion Ball Valves Full Port - API 6D

Size: 2" - 42" Class: 600



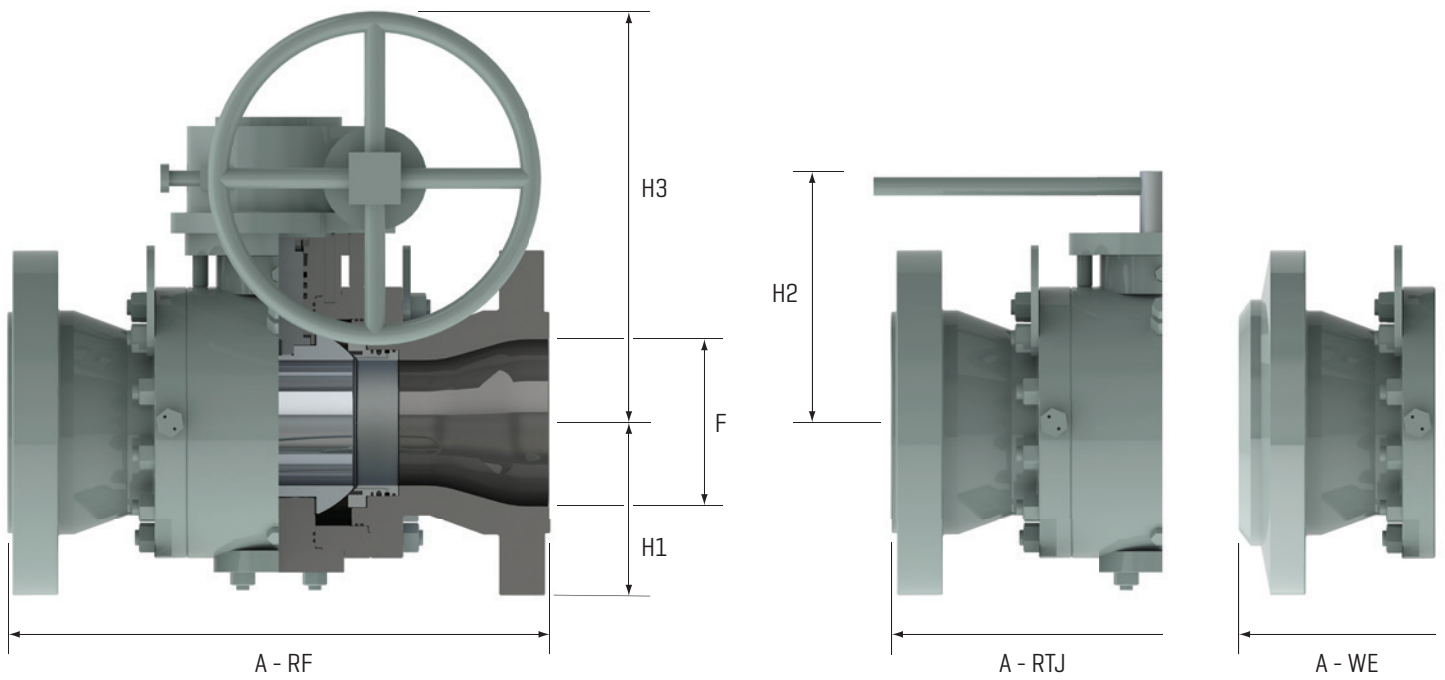
CLASS 600	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights
	IN	MM	F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG
	2*	50	2.00	11.50	11.62	11.50	4.11	6.82	11.93	●		73
			51	292	295	292	104	173	303			33
	3*	80	3.00	14.00	14.125	14.00	4.98	8.45	13.52	●		137
			76	356	359	356	126	215	343			62
	4*	100	4.00	17.00	17.12	17.00	6.79	9.67	14.42	●		255
			102	432	435	432	172	246	366			116
	6	150	6.00	22.00	22.12	22.00	8.51	/	19.70	●		541
			152	559	562	559	216	/	500			245
	8	200	8.00	26.00	26.12	26.00	9.88	/	24.41	●		836
			203	660	663	660	251	/	620			379
	10	250	10.00	31.00	31.12	31.00	11.85	/	26.75	●		1494
			254	787	790	787	301	/	679			678
	12	300	12.00	33.00	33.12	33.00	13.70	/	31.75	●		2191
			305	838	841	838	348	/	806			994
	14	350	13.25	35.00	35.12	35.00	14.38	/	33.12		●	2765
			337	889	892	889	365	/	841			1254
	16	400	15.25	39.00	39.12	39.00	15.50	/	36.12		●	3968
			387	991	994	991	394	/	917			1800
	18	450	17.25	43.00	43.12	43.00	17.69	/	39.14		●	5596
			438	1092	1095	1092	449	/	994			2538
	20	500	19.25	47.00	47.25	47.00	18.87	/	40.78		●	6899
			489	1194	1200	1194	479	/	1036			3129
	24	600	23.25	55.00	55.38	55.00	22.50	/	47.84		●	11377
			591	1397	1407	1397	572	/	1215			5161
	26		25.00	57.00	57.50	57.00	31.74	40.74	45.64		●	13670.8
		650	635	1448	1461	1448	806	1035	1159			6214
	28		27.00	61.00	61.50	61.00	38.85	44.76	50.67		●	22451
		700	686	1549	1562	1549	987	1137	1287			10205
	30		29.00	65.00	65.50	65.00	42.00	48.20	54.40		●	23949.2
		750	737	1651	1664	1651	1067	1224	1382			10886
	36		34.50	82.00	82.625	82.00	47.34	53.54	59.74		●	37620
		900	876	2083	2099	2083	1202	1360	1517			17100
	42		40.23	96.00	/	96.00	38.46	/	53.3		●	47598
		1050	1022	2438	/	2438	977	/	1354			21590

* = Lever operated

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

3-Piece Trunnion Ball Valves Reduced Port - API 6D

Size: 3" - 42" Class: 600



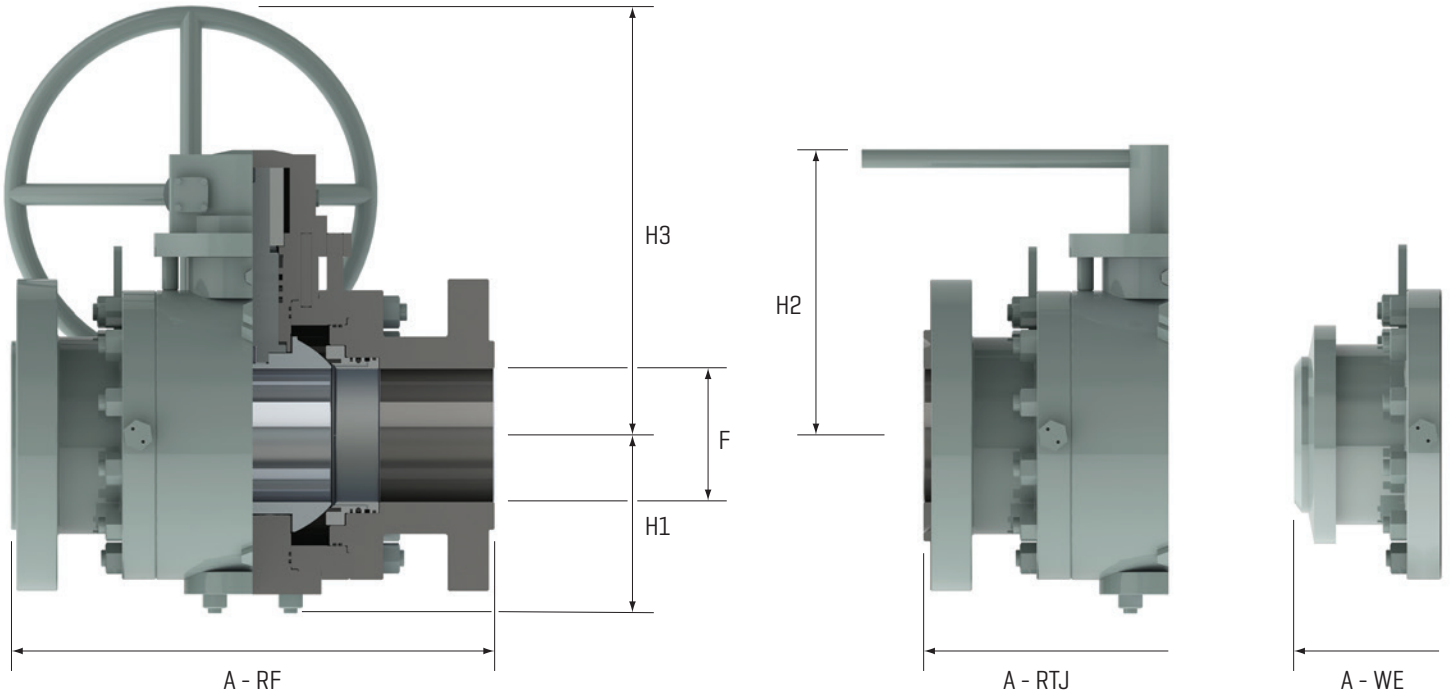
CLASS 600	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights	BW Weights
	IN	MM	F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG	LBS/KG
											●		
	3 x 2*	80 x 50	2.00	14.00	14.125	14.00	5.22	7.28	9.68			79.2	63.8
			51	356	359	356	133	185	279	●		36	29
	4 x 3*	100 x 80	3.00	17.00	17.125	17.00	6.34	9.47	11.87	●		138.6	114.4
			76	432	435	432	161	241	301	●		63	52
	6 x 4	150 x 100	4.00	22.00	22.125	22.00	7.28	10.34	12.74	●		299.2	248.6
			102	559	562	559	185	263	324	●		136	113
	8 x 6	200 x 150	6.00	26.00	26.125	26.00	9.47	13.29	15.59	●		697.4	578.6
			152	660	664	660	241	338	396	●		317	263
	10 x 8	250 x 200	8.00	31.00	31.125	31.00	11.16	15.90	18.30	●		1346.4	1075.8
			203	787	791	787	283	404	465	●		612	489
	12 x 10	300 x 250	10.00	33.00	33.125	33.00	13.23	17.84	20.98	●		1894.2	1535.6
			254	838	841	838	336	453	533	●		861	698
	14 x 12	350 x 300	12.00	35.00	35.125	35.00	14.98	20.00	23.04		●	2593.8	2145
			305	889	892	889	380	508	585		●	1179	975
	16 x 14	400 x 350	13.25	39.00	39.125	39.00	16.60	22.30	25.45		●	3291.2	2743.4
			337	991	994	991	422	566	646		●	1496	1247
	18 x 16	450 x 400	15.25	43.00	43.125	43.00	18.39	24.05	28.05		●	5088.6	4180
			387	1092	1095	1092	467	611	713		●	2313	1900
	20 x 18	500 x 450	17.25	47.00	47.25	47.00	20.05	27.05	31.10		●	6536.2	5337.2
			438	1194	1200	1194	509	687	790		●	2971	2426
	24 x 20	600 x 500	19.25	55.00	55.325	55.00	21.90	28.80	33.90		●	7383.2	6036.8
			489	1397	1405	1397	556	732	861		●	3356	2744
	30 x 24	800 x 600	23.25	65.00	65.50	65.00	24.09	/	29.88		●	13030	11987
			591	1651	1664	1651	612	/	759		●	5910	5437
	36 x 30	900 x 800	28.97	82.00	82.625	82.00	28.58	/	34.92		●	23281	21186
			736	2083	2098	2083	726	/	887		●	10560	9610
	42 x 36	1050 x 900	34.48	96.00	/	96.00	38.46	/	53.3		●	47598	42362
			876	2438	/	2438	977	/	1354		●	21590	19215

* = Lever operated

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

3-Piece Trunnion Ball Valves Full Port - API 6D

Size: 2" - 36" Class: 900



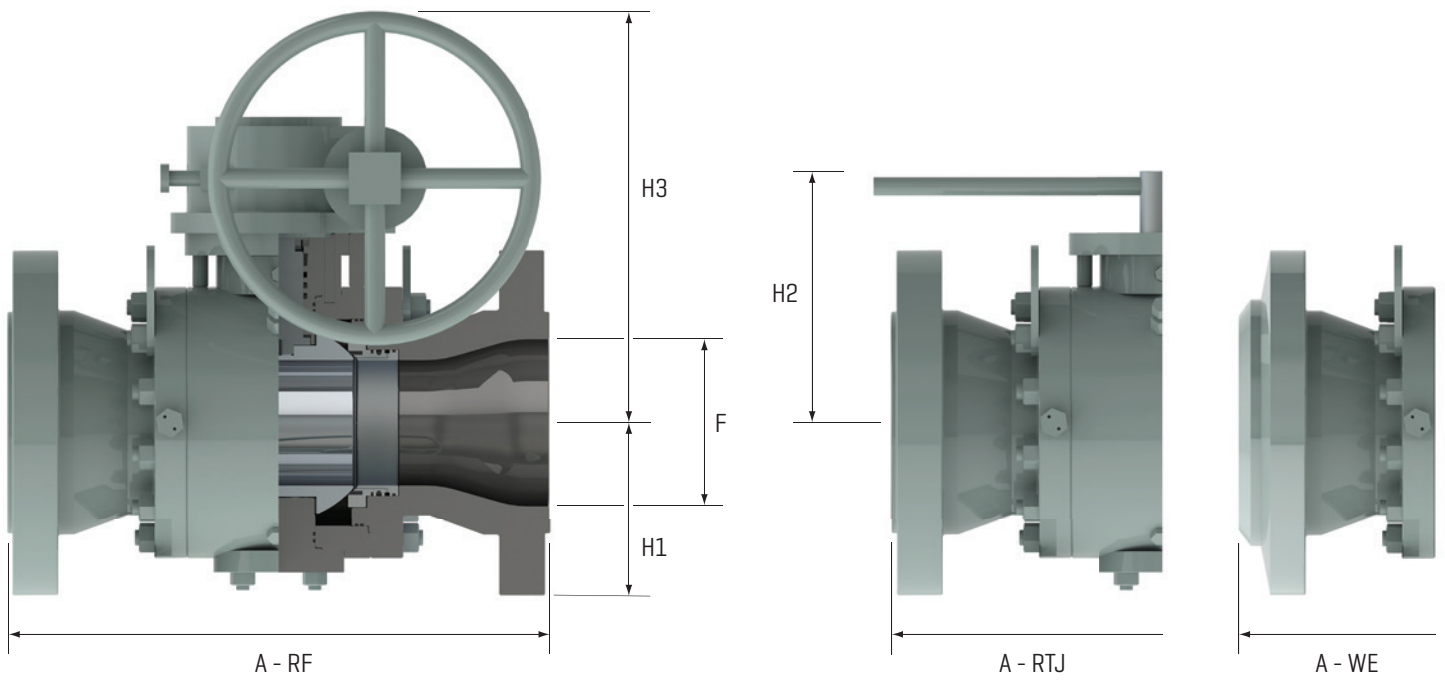
CLASS 900	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights
			F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG
	IN	2*	2.00	14.50	14.625	14.50				●		
	MM	50	51	368	372	368						
	IN	3*	3.00	15.00	15.125	15.00				●		
	MM	80	76	381	384	381						
	IN	4	4.00	18.00	18.125	18.00				●		
	MM	100	102	457	460	457						
	IN	6	6.00	24.00	24.125	24.00				●		
	MM	150	152	610	613	610						
	IN	8	8.00	29.00	29.125	29.00				●		
	MM	200	203	737	740	737						
	IN	10	10.00	33.00	33.125	33.00				●		
	MM	250	254	838	841	838						
	IN	12	12.00	38.00	38.125	38.00				●		
	MM	300	305	965	968	965						
	IN	14	13.75	40.50	40.875	40.50					●	
	MM	350	337	1029	1038	1029						
	IN	16	14.75	44.50	44.875	44.50					●	
	MM	400	387	1130	1140	1130						
	IN	18	15.25	48.00	48.50	48.00					●	
	MM	450	438	1219	1232	1219						
	IN	20	19.25	52.00	52.50	52.00					●	
	MM	500	489	1321	1334	1321						
	IN	24	22.50	61.00	61.75	61.00					●	
	MM	600	591	1549	1569	1549						
	IN	30	28.11	74.00	74.88	74.00	31.06	/	41.18		●	
	MM	750	714	1880	1902	1880	789	/	1046			12440

* = Lever operated

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

3-Piece Trunnion Ball Valves Reduced Port - API 6D

Size: 3" - 42" Class: 900



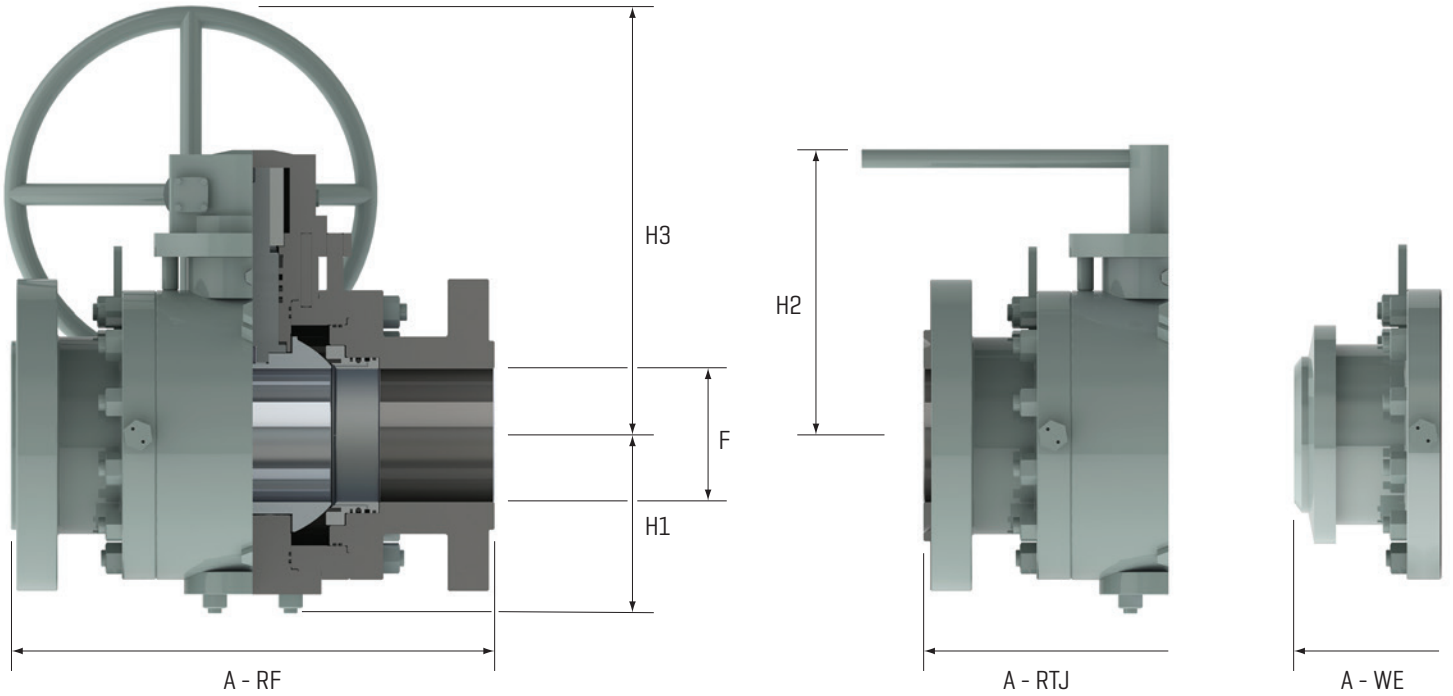
CLASS 900	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights	BW Weights
			F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG	LBS/KG
	IN	MM								●			
	3 x 2*	80 x 50	2.00	15.00	15.125	15.00	5.22	8.06	11.64	●		138.6	107.8
			51	381	384	381	133	205	296			63	49
	4 x 3*	100 x 80	3.00	18.00	18.125	18.00	6.34	10.25	13.84	●		217.8	173.8
			76	457	460	457	161	260	352			99	79
	6 x 4	150 x 100	4.00	24.00	24.125	24.00	7.28	11.12	14.70	●		437.8	347.6
			102	610	613	610	185	283	373			199	158
	8 x 6	200 x 150	6.00	29.00	29.125	29.00	9.47	14.07	17.65	●		897.6	717.2
			152	737	740	737	241	357	448			408	326
	10 x 8	250 x 200	8.00	33.00	33.125	33.00	11.16	16.68	20.26	●		1595	1276
			203	838	841	838	283	424	515			725	580
	12 x 10	300 x 250	10.00	38.00	38.125	38.00	13.23	18.62	22.94	●		2295	1846
			254	965	968	965	336	473	583			1043	839
	14 x 12	350 x 300	12.00	40.50	40.875	40.50	14.98	20.77	25.00		●	3392	2743
			305	1029	1038	1029	380	528	635			1542	1247
	16 x 14	400 x 350	12.75	44.50	44.875	44.50	16.60	23.10	27.41		●	3991	3192
			337	1130	1140	1130	422	587	696			1814	1451
	18 x 16	450 x 400	14.75	48.00	48.50	48.00	18.39	24.83	30.01		●	5438	4239
			387	1219	1231	1219	467	631	763			2472	1927
	20 x 18	500 x 450	16.75	52.00	52.50	52.00	18.75	26.53	31.75		●	7031	5636
			438	1321	1334	1321	509	674	807			3878	3107
	24 x 20	600 x 500	18.625	61.00	61.75	61.00	21.90	29.58	35.86		●	11436	9130
			489	1549	1569	1549	556	751	911			5198	4150
	30 x 24	750 x 600	22.48	74.00	74.88	74.00	27.08	/	32.87		●	18232	16773
			571	1880	1902	1880	688	/	835			8270	7608
	36 x 30	900 x 750	28.11	90.00	91.14	90.00	35.43	/	46.1		●	44423	40426
			714	2286	2315	2286	900	/	1171			20150	18337
	42 x 36	1050 x 900	33.74	105.00	106.14	105.00	41.73	/	48.03		●	52073	47388
			857	2667	2696	2667	1060	/	1220			23620	21495

* = Lever operated

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3-Piece Trunnion Ball Valves Full Port - API 6D

Size: 1" - 24" Class: 1500



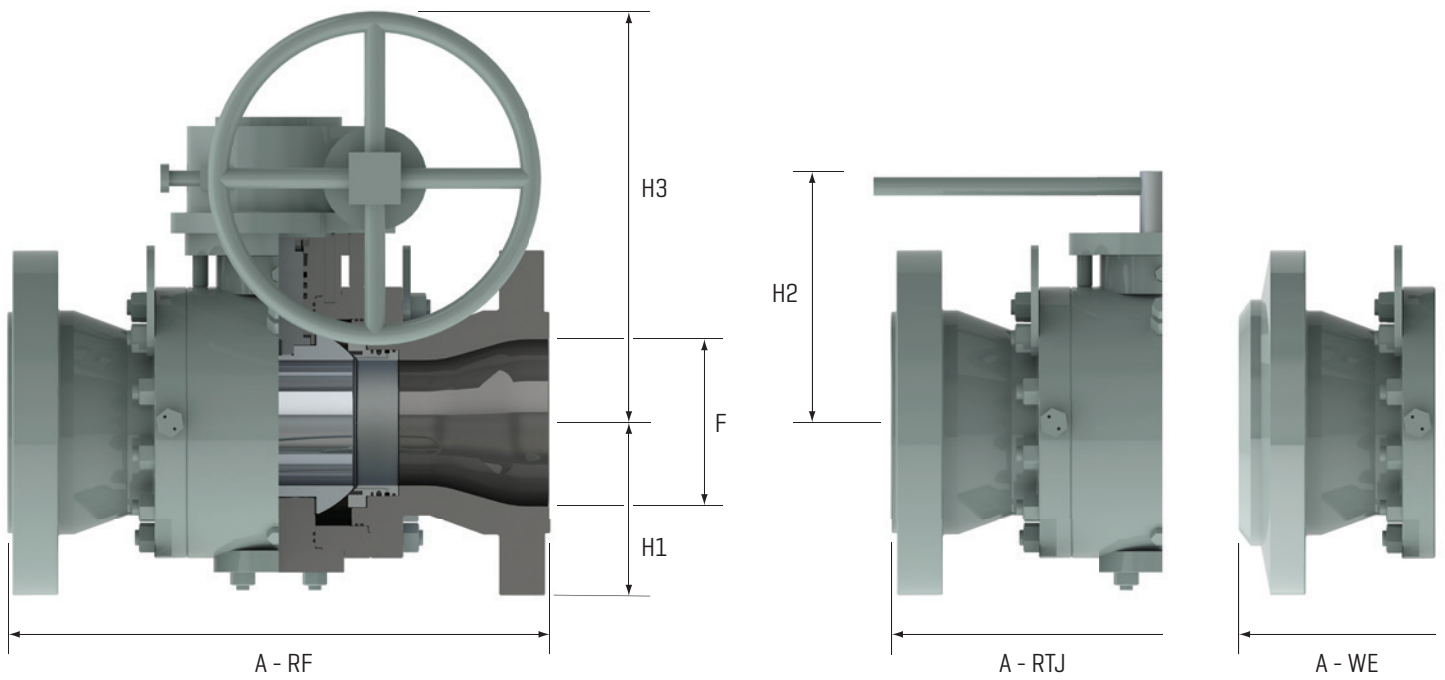
CLASS 1500	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights
			F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG
	IN	MM										
	1*	25	1.00	/	10.0	/	3.15	5.90	7.64	●		70
	25	25	25	/	254	/	80	150	194			26
	1.5*	38	1.50	/	12	/	4	7.56	7.91	●		107
	38	38	38	/	305	/	100	192	201			40
	2*	50	2.00	14.50	14.625	14.49	4.44	6.50	8.90	●		119
	50	51	51	368	371	368	113	265	226			54
	3*	80	3.00	18.50	18.625	18.50	5.56	8.69	11.09	●		240
	80	76	76	470	473	470	141	221	282			109
	4	100	4.00	21.50	21.625	21.50	6.50	9.56	11.96	●		420
	100	102	102	546	549	546	165	243	304			191
	6	150	5.75	27.75	28.00	27.75	8.69	12.19	14.59		●	1190
	150	152	152	705	711	705	221	310	371			541
	8	200	8.00	32.75	33.125	32.75	10.38	14.80	17.20		●	1936
	200	203	203	832	841	832	264	376	437			880
	10	250	10.00	39.00	39.375	39.02	12.13	16.63	19.78		●	3420
	250	254	254	991	1000	991	308	422	502			1555
	12	300	12.00	44.50	45.125	44.50	13.88	18.69	21.84		●	5120
	300	305	305	1130	1146	1130	353	475	555			2327
	14	350	13.25	49.50	50.25	49.50	15.50	21.00	24.15		●	6259
	350	337	337	1257	1276	1257	394	533	613			2845
	16	400	15.25	54.50	55.375	54.50	17.19	22.75	26.75		●	9210
	400	387	387	1384	1407	1384	437	578	680			4186

* = Lever operated

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

3-Piece Trunnion Ball Valves Reduced Port - API 6D

Size: 3" - 24" Class: 1500



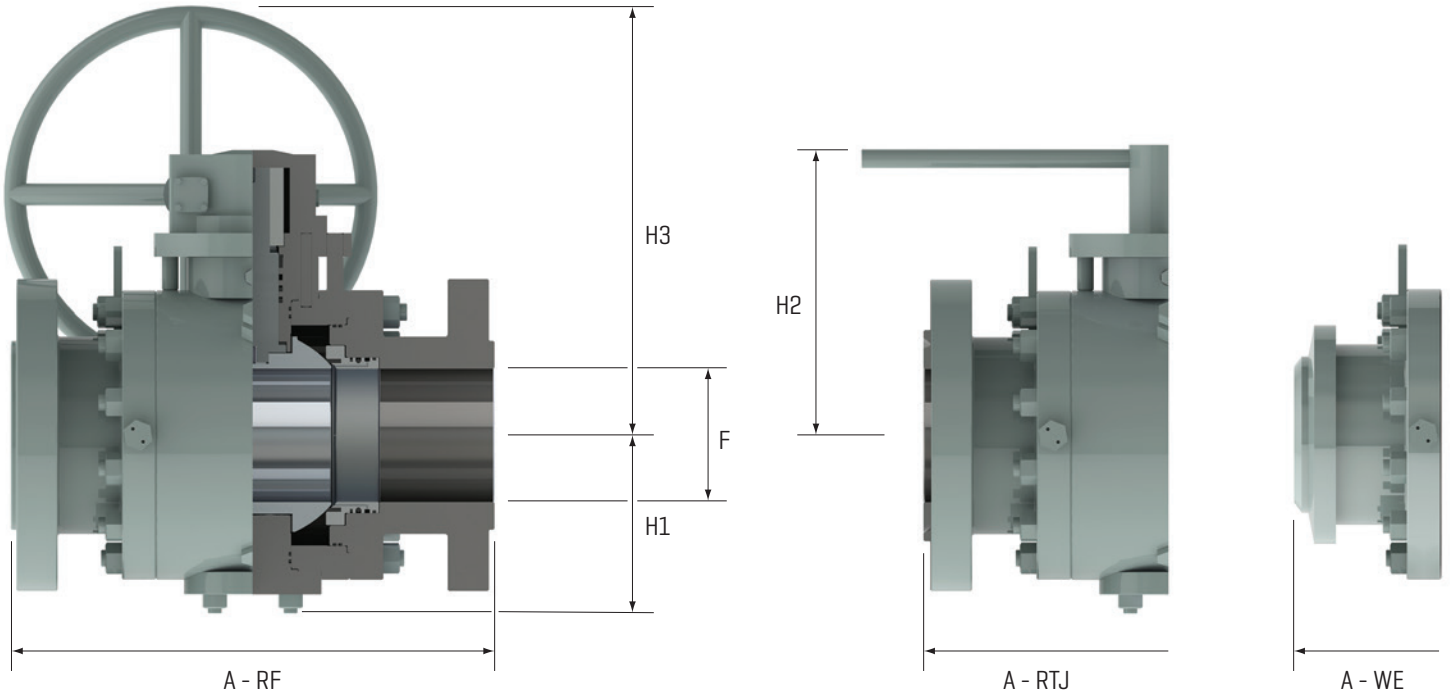
CLASS 1500	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights	BW Weights
	IN	MM	F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG	LBS/KG
	3 x 2*	80 x 50	2.00	18.50	18.625	18.50	5.22	7.28	9.68	●		170	155
			51	470	473	470	133	185	246			77	71
	4 x 3	100 x 80	3.00	21.50	21.625	21.50	6.34	9.47	11.87	●		320	265
			76	546	549	546	161	241	301			145	120
	6 x 4	150 x 100	4.00	27.75	28.00	27.75	7.28	10.34	12.74		●	650	540
			102	705	711	705	185	263	324			295	245
	8 x 6	200 x 150	6.00	32.75	33.125	32.75	9.47	13.29	15.59		●	1450	980
			152	832	841	832	241	338	396			659	445
	10 x 8	250 x 200	8.00	39.00	39.375	39.00	11.16	15.90	18.30		●	2380	1666
			203	991	1000	991	283	404	465			1082	757
	12 x 10	300 x 250	10.00	44.50	45.125	44.50	13.23	17.84	20.98		●	4070	2849
			254	1130	1146	1130	336	453	533			1850	1295
	14 x 12	350 x 300	12.00	49.50	50.25	49.50	14.98	20.00	23.04		●	5741	4020
			305	1257	1276	1257	381	508	585			2606	1827
	16 x 14	400 x 350	13.25	54.50	55.375	54.50	16.60	22.30	25.45		●	6678	5640
			337	1384	1407	1384	422	566	646			2845	1959
	18 x 16	450 x 400	15.25	60.50	61.375	60.50	18.39	24.05	28.05		●	12180	9740
			387	1537	1559	1537	467	611	712			5536	4427
	20 x 18	500 x 450	17.25	65.50	66.375	65.50	20.05	27.05	31.10		●	17360	14800
			438	1664	1686	1664	509	687	790			7891	6727
	24 x 20	600 x 500	19.25	76.50	77.625	76.50	21.90	28.80	33.90		●	23820	19120
			489	1943	1972	1943	556	732	861			10830	8690

* = Lever operated

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

3-Piece Trunnion Ball Valves Full Port - API 6D

Size: 1" - 12" Class: 2500



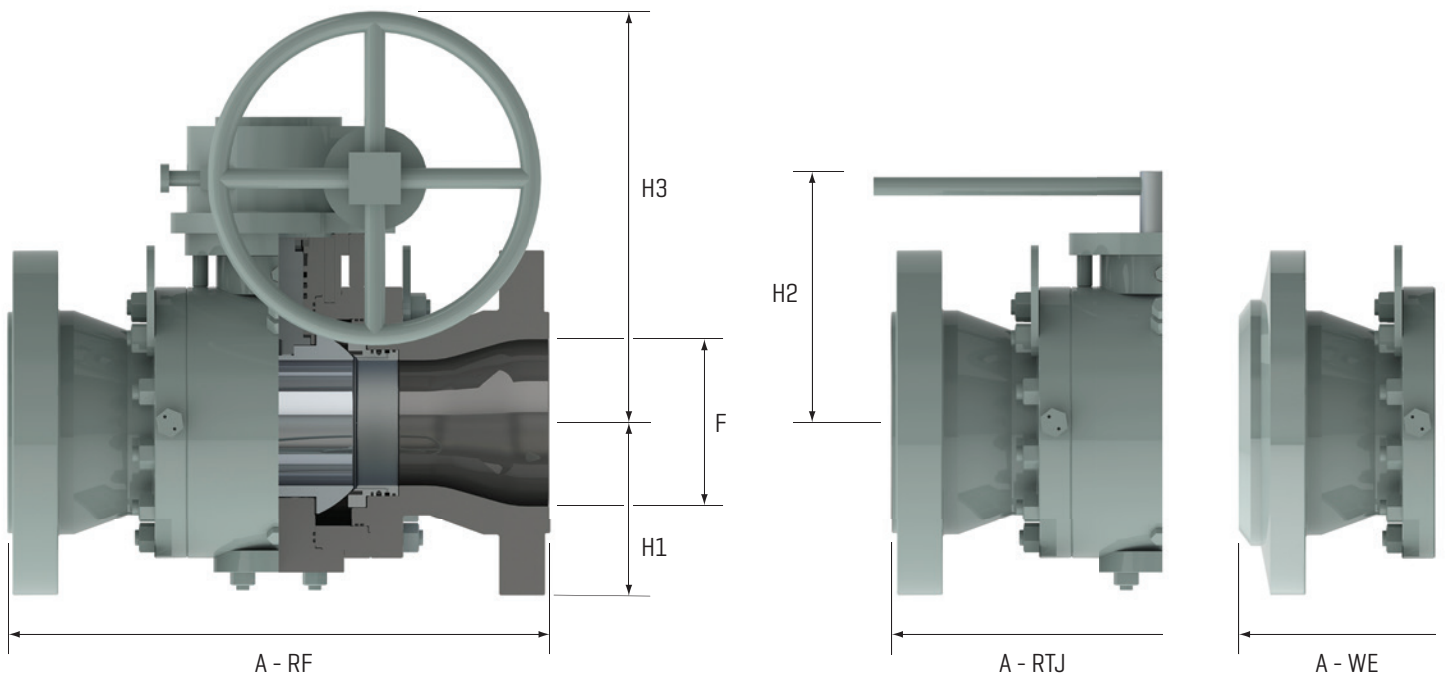
CLASS 2500	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights
			F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG
	IN	1*	1.00	/	14.0	/	/	3.78	7.56	/	●	
MM	25	25	/	356	/	/	96	192	/			36
IN	1.5*	1.50	/	15.24	/	/	4.30	8.15	/	●		130
MM	38	38	/	387	/	/	109	209	/			48
IN	2*	2.00	17.75	17.875	17.75	17.75	4.44	7.28	10.90	●		225
MM	50	51	451	454	451	451	113	185	277			115
IN	3*	3.00	22.75	23.00	22.75	22.75	5.56	9.47	13.05	●		440
MM	80	76	578	584	578	578	141	241	331			200
IN	4	4.00	26.50	26.875	26.50	26.50	6.50	10.34	13.92	●		825
MM	100	102	673	682	673	673	165	263	354			370
IN	6	6.00	36.00	36.50	36.50	36.00	8.69	12.97	16.55			1790
MM	150	152	914	927	914	914	220	329	420		●	800
IN	8	8.00	40.25	40.875	40.25	40.25	10.38	15.58	19.10		●	3500
MM	200	203	1022	1038	1022	1022	264	396	485		●	1600
IN	10	10.00	50.00	50.875	50.00	50.00	12.13	17.41	21.74		●	5400
MM	250	254	1270	1292	1270	1270	308	442	552		●	2500
IN	12	12.00	56.00	56.875	56.00	56.00	13.88	19.47	23.80		●	8300
MM	300	305	1422	1444	1422	1422	353	495	605		●	4000

* = Lever operated

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

3-Piece Trunnion Ball Valves Reduced Port - API 6D

Size: 3" - 12" Class: 2500

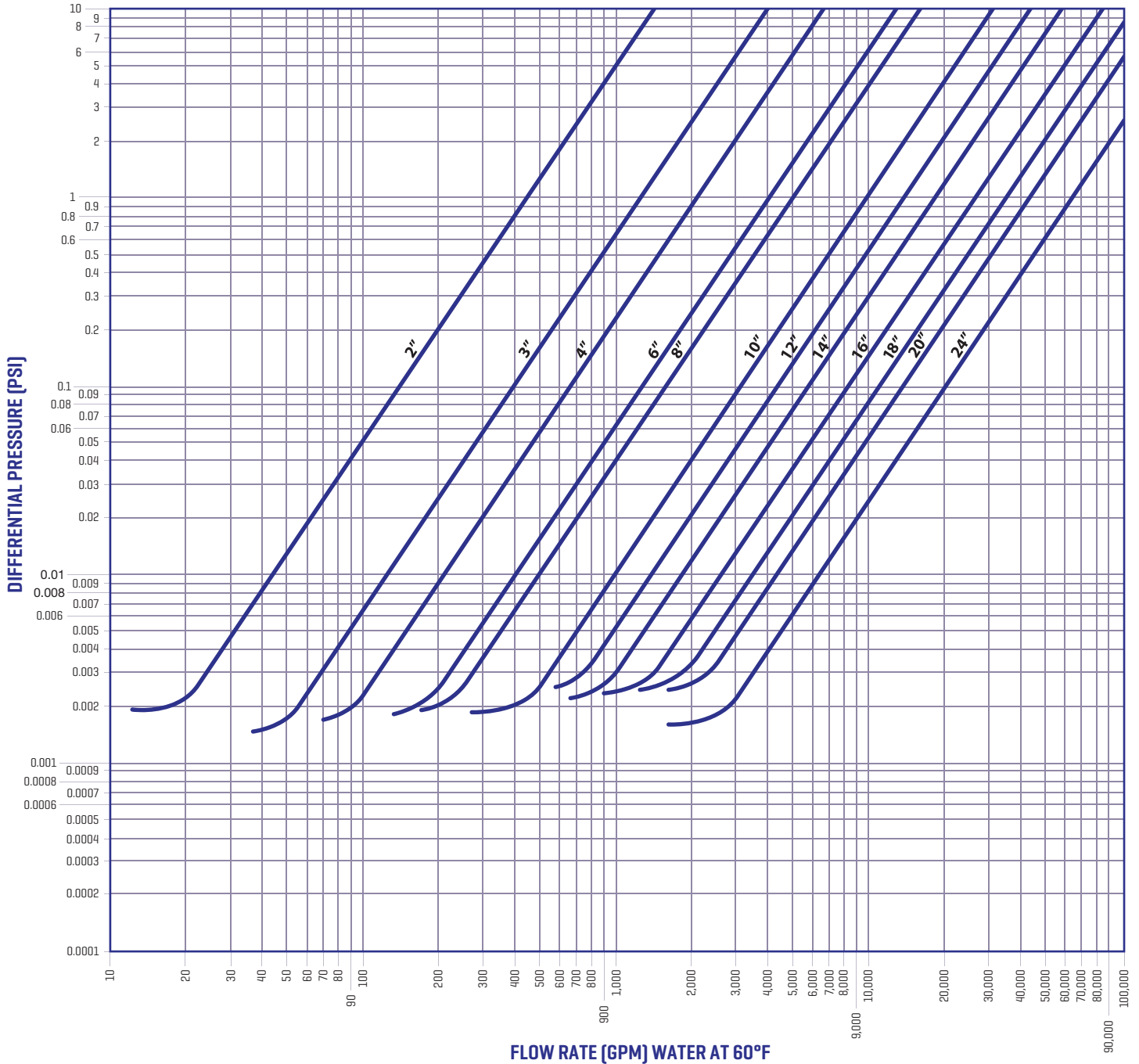


CLASS 2500	Size		Bore	End-to-End			Body Dimensions			Trunnion		FLG Weights	BW Weights
	IN	MM	F	A - RF	A - RTJ	A - WE	H1	H2	H3	EXT	INT	LBS/KG	LBS/KG
	3 x 2*	80 x 50	2.00	22.75	23.00	22.75	5.22	8.06	11.64	●		305	260
			50	51	578	584	578	133	205			296	120
	4 x 3	100 x 80	3.00	26.50	26.875	26.50	6.34	10.25	13.84	●		620	527
			80	76	673	683	673	161	260			352	240
	6 x 4	150 x 100	4.00	36.00	36.50	36.00	7.28	11.12	14.70		●	1270	1080
			102	914	927	914	185	282	373			373	490
	8 x 6	200 x 150	6.00	40.25	40.875	40.25	9.47	14.07	17.65		●	2630	2235
			152	1022	1038	1022	241	357	448			1195	995
	10 x 8	250 x 200	8.00	50.00	50.875	50.00	11.16	16.68	20.26		●	4750	4030
			203	1270	1292	1270	283	424	515			2160	1830
	12 x 10	300 x 250	10.00	56.00	56.875	56.00	13.23	18.62	22.94		●	6620	5620
			254	1422	1445	1422	336	473	583			3010	2550

* = Lever operated

Note: SCV reserves the right to change any technical design and dimensional data without prior notice. Please contact SCV to confirm all Dimensions and Data offered in this catalog.

Liquid: Pressure Loss Curves for Trunnion Ball Valves



Flow Coefficient for Fully Open Valves	
2	447
3	1,264
4	2,121
6	4,082
8	5,000
10	10,000
12	14,000
14	18,584
16	26,516
18	35,172
20	44,008
24	64,616

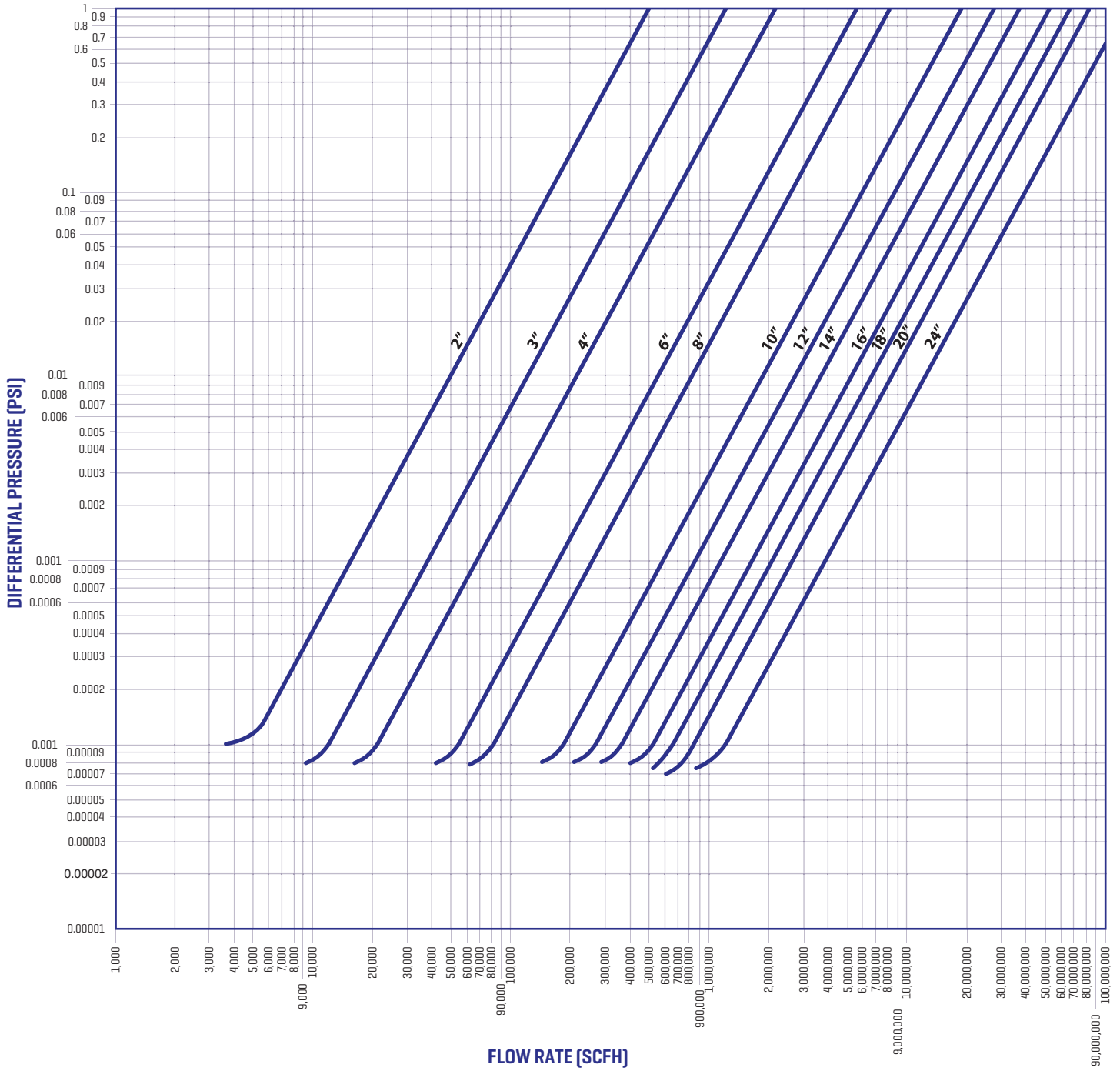
The equations listed are the basis for the above graph. The formulas can be used to find the actual flow coefficient for a given condition of flow.

Glossary of Terms	
Q	Flow Rate, Liquids - GPM
Cv	Flow Coefficient
P1	Inlet Pressure
P2	Outlet Pressure
ΔP	Pressure Drop [P1 - P2]
G	Specific Gravity [Water = 1]

Liquid (Incompressible Flow)

$$C_v = Q \sqrt{\frac{G}{\Delta P}} \quad Q = C_v \sqrt{\frac{\Delta P}{G}} \quad \Delta P = \left[\frac{Q}{C_v} \right]^2 G$$

Gas: Pressure Loss Curves for Trunnion Ball Valves



Flow Coefficient for Fully Open Valves	
2	227
3	561
4	994
6	2,522
8	3,803
10	8,594
12	12,549
14	16,778
16	24,000
18	30,525
20	38,668
24	56,481

The equations listed are the basis for the above graph. The formulas can be used to find the actual flow coefficient for a given condition of flow.

Glossary of Terms	
Q	Flow Rate - [SCFH]
Cv	Flow Coefficient
P ₁	Inlet Pressure - [psi]
P ₂	Outlet Pressure - [psi]
ΔP	Pressure Drop [P ₁ - P ₂]
G	Specific Graqvity [Dry Air = 1]
T	Temperature [°F+460]

Gas [Compressible Flow]

$$C_v = \frac{Q}{963} \sqrt{\frac{GT}{P_1^2 - P_2^2}} \quad Q = C_v 963 \sqrt{\frac{P_1^2 - P_2^2}{GT}}$$

Operating Torques

The operating torques are in inch pounds and are calculated based on Devlon seats and clean liquid service (no safety factor).

Torque Multipliers		Liquid Slurry 1.8		Lubtristic Fluids 0.8		Gas Clean Dry 1.2	
Size	Class	Break to Open	Break to Close	Run Torque	Mast		
IN MM	2 50	150	540	432	270	1080	
		300	772	618	386	1544	
		600	1210	968	605	2420	
		900	2652	2122	1326	5304	
		1500	2652	2122	1326	5304	
	2500	4501	3601	2251	9002		
IN MM	3 80	150	688	550	344	1376	
		300	1122	898	561	2244	
		600	2185	1748	1093	4370	
		900	3228	2582	1614	6456	
		1500	5649	4519	2825	11298	
	2500	8607	6886	4304	17214		
IN MM	4 100	150	1110	888	555	2220	
		300	1989	1591	995	3978	
		600	4572	3658	2286	9144	
		900	6422	5138	3211	12844	
		1500	10128	8102	5064	20256	
	2500	15300	12240	7650	30600		
IN MM	6 150	150	4071	3257	2036	8142	
		300	5620	4656	2910	11640	
		600	9660	7728	4830	19320	
		900	15780	12624	7890	31560	
		1500	25680	20544	12840	51360	
	2500	43707	34966	21854	87414		
IN MM	8 200	150	7070	5656	3535	14140	
		300	12772	10218	6386	25544	
		600	19584	15667	9792	39168	
		900	31824	25459	15912	63648	
		1500	48720	38976	34360	97440	
	2500	76176	60941	38088	152352		
IN MM	10 250	150	10504	8403	5252	21008	
		300	19488	15590	9744	38976	
		600	30540	24432	15270	61080	
		900	44400	35520	22200	88800	
		1500	74400	59520	24441	190952	
	2500	125616	100493	62808	251232		
IN MM	12 300	150	13506	10805	6753	27012	
		300	22344	17875	11172	44688	
		600	51312	41050	25656	102624	
		900	79716	63773	39858	159432	
		1500	106284	85027	53142	212568	
	2500	211884	169507	105942	423768		
IN MM	14 350	150	17373	13989	8687	34746	
		300	28332	22666	14166	56664	
		600	57456	45965	28728	114912	
		900	97428	77942	48714	194856	
		1500	144948	115958	72474	289896	
IN MM	16 400	150	25727	20582	12864	51454	
		300	46860	37488	23430	93720	
		600	78828	63062	39414	157656	
		900	138804	111043	69402	277608	
		1500	197472	157978	98736	394944	
IN MM	18 450	150	33543	26834	16772	67086	
		300	54624	43699	27312	109248	
		600	119568	95654	59784	239136	
		900	194017	155214	97009	388034	
		1500	42516	34013	21258	85032	
IN MM	20 500	300	71186	56949	35593	142372	
		600	158906	127125	79453	317812	
		900	235887	188710	117944	471774	
		1500	61992	49594	30996	123984	
		300	109970	87976	54985	219940	
IN MM	24 600	600	234886	187909	117443	469772	
		900	365157	282126	182579	730314	

Torques for larger sizes available upon request.

Pressure Temperature Ratings - ASME B16.34 ■■■■■■■■■■

Note: Pressures in PSI

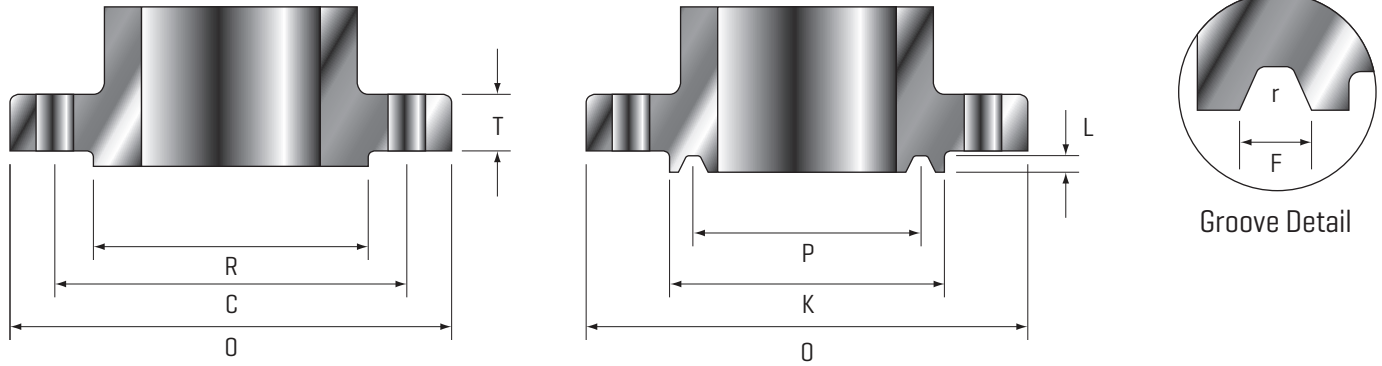
	Temp. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	150	-20 to 100	285	285	285	290	265	290	290	290	290	290	275	275	290
200	260	260	260	260	260	255	260	260	260	260	260	235	235	260	260
300	230	230	230	230	230	230	230	230	230	230	230	215	215	230	230
400	200	200	200	200	200	200	200	200	200	200	200	195	195	200	200
500	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
600	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
650	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
700	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110
750	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95
800	80	80	80	80	80	80	80	80	80	80	80	80	80	/	/
850	65	65	65	65	65	65	65	65	65	65	65	65	65	/	/
900	50	50	50	50	50	50	50	50	50	50	50	50	50	/	/
950	35	35	35	35	35	35	35	35	35	35	35	35	35	/	/
1000	20	20	20	20	20	20	20	20	20	20	20	20	20	/	/
1050	/	/	/	/	/	/	20	/	20	20	20	20	20	/	/
1100	/	/	/	/	/	/	20	/	20	20	20	20	20	/	/
1150	/	/	/	/	/	/	20	/	20	20	20	20	20	/	/
1200	/	/	/	/	/	/	15	/	15	20	20	20	20	/	/
1250	/	/	/	/	/	/	/	/	/	/	/	20	20	/	/
1300	/	/	/	/	/	/	/	/	/	/	/	20	20	/	/
1350	/	/	/	/	/	/	/	/	/	/	/	20	20	/	/
1400	/	/	/	/	/	/	/	/	/	/	/	20	20	/	/
1450	/	/	/	/	/	/	/	/	/	/	/	20	20	/	/
1500	/	/	/	/	/	/	/	/	/	/	/	15	15	/	/
300	Temp. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	-20 to 100	740	740	740	750	695	750	750	750	750	750	720	720	750	750
200	680	680	680	680	750	660	750	750	750	750	750	620	620	745	745
300	655	655	655	655	730	640	720	730	730	730	730	560	560	665	665
400	635	635	635	635	705	615	695	705	705	705	705	515	515	615	615
500	605	605	605	605	665	585	665	665	665	665	665	480	480	580	580
600	570	570	570	570	605	550	605	605	605	605	605	450	450	555	555
650	550	550	550	550	590	535	590	590	590	590	590	440	440	545	545
700	530	530	530	530	555	510	570	555	570	570	570	435	435	540	540
750	505	505	505	505	505	475	530	505	530	530	530	425	425	530	530
800	410	410	410	410	410	390	510	410	510	510	510	420	420	/	/
850	320	320	320	320	320	300	485	320	485	485	485	420	420	/	/
900	230	230	230	230	225	200	450	225	375	450	450	415	415	/	/
950	135	135	135	135	135	135	320	135	275	375	385	385	385	/	/
1000	85	85	85	85	85	85	215	85	200	255	365	365	365	/	/
1050	/	/	/	/	/	/	145	/	145	170	360	160	160	/	/
1100	/	/	/	/	/	/	95	/	100	115	300	305	305	/	/
1150	/	/	/	/	/	/	65	/	60	75	225	235	235	/	/
1200	/	/	/	/	/	/	40	/	35	50	145	185	185	/	/
1250	/	/	/	/	/	/	/	/	/	/	/	145	145	/	/
1300	/	/	/	/	/	/	/	/	/	/	/	115	115	/	/
1350	/	/	/	/	/	/	/	/	/	/	/	95	95	/	/
1400	/	/	/	/	/	/	/	/	/	/	/	75	75	/	/
1450	/	/	/	/	/	/	/	/	/	/	/	60	60	/	/
1500	/	/	/	/	/	/	/	/	/	/	/	40	40	/	/

Pressure Temperature Ratings - ASME B16.34

Note: Pressures in PSI

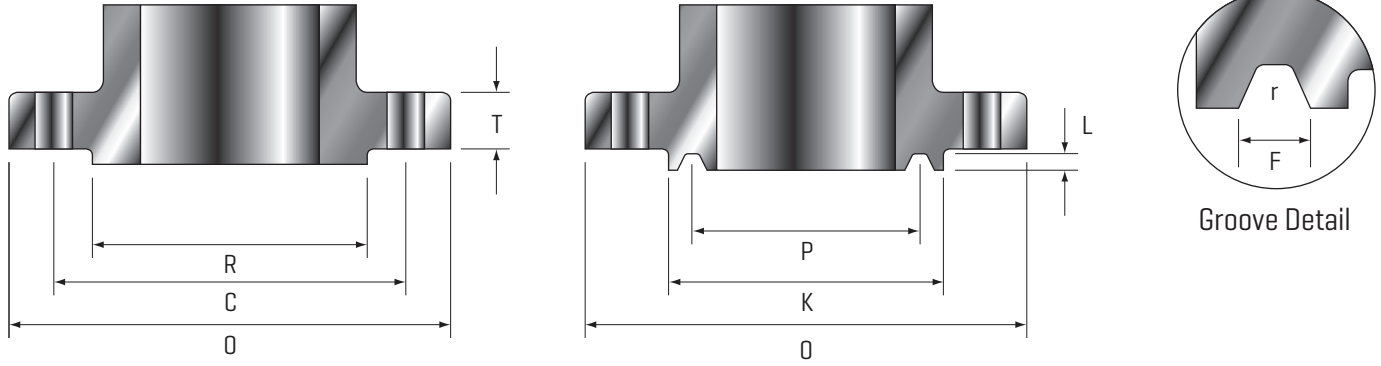
1500	Temp. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	-20 to 100	3705	3705	3705	3750	3480	3750	3750	3750	3750	3750	3750	3600	3600	3750
200	3395	3395	3395	3750	3300	3750	3750	3750	3750	3750	3750	3095	3095	3720	3720
300	3270	3270	3270	3640	3190	3610	3640	3640	3640	3640	3640	2795	2795	3335	3335
400	3170	3170	3170	3520	3075	3465	3520	3530	3530	3530	3530	2570	2570	3070	3070
500	3015	3015	3015	3325	2930	3325	3325	3325	3325	3325	3325	2390	2390	2905	2905
600	2840	2840	2840	3025	2755	3025	3025	3025	3025	3025	3025	2255	2255	2785	2785
650	2745	2745	2745	2940	2665	2940	2940	2940	2940	2940	2940	2210	2210	2735	2735
700	2665	2665	2665	2775	2560	2840	2775	2840	2840	2840	2840	2170	2170	2710	2710
750	2535	2535	2535	2535	2385	2660	2535	2660	2660	2660	2660	2135	2135	2660	2660
800	2055	2055	2055	2055	1955	2540	2055	2540	2540	2540	2540	2110	2110	/	/
850	1595	1595	1595	1595	1490	2435	1595	2435	2435	2435	2435	2090	2090	/	/
900	1150	1150	1150	1115	1010	2245	1115	1870	2245	2245	2245	2075	2075	/	/
950	685	685	685	685	685	1591	685	1370	1885	1930	1930	1930	1930	/	/
1000	430	430	430	430	430	1080	430	995	1270	1820	1820	1820	1820	/	/
1050	/	/	/	/	/	720	/	720	855	1800	1800	1800	1800	/	/
1100	/	/	/	/	/	480	/	495	565	1510	1525	1525	1525	/	/
1150	/	/	/	/	/	325	/	310	375	1115	1185	1185	1185	/	/
1200	/	/	/	/	/	205	/	170	255	720	925	925	925	/	/
1250	/	/	/	/	/	/	/	/	/	/	735	735	735	/	/
1300	/	/	/	/	/	/	/	/	/	/	585	585	585	/	/
1350	/	/	/	/	/	/	/	/	/	/	480	480	480	/	/
1400	/	/	/	/	/	/	/	/	/	/	380	380	380	/	/
1450	/	/	/	/	/	/	/	/	/	/	290	290	290	/	/
1500	/	/	/	/	/	/	/	/	/	/	205	205	205	/	/
2500	Temp. F	A105	WCB	LF2	WCC	LCB	WC6	LCC	C5	C12	C12A	316	CF8M	F51	F53
	-20 to 100	6170	6170	6170	6250	5805	6250	6250	6250	3250	6250	6000	6000	6250	6250
200	5655	5655	5655	6250	5505	6250	6250	6250	6250	6250	6250	5160	5160	6200	6200
300	5450	5450	5450	6070	5315	6015	6070	6070	6070	6070	6070	4660	4660	5560	5560
400	5280	5280	5280	5865	5125	5775	5865	5880	5880	5880	5880	4280	4280	5120	5120
500	5025	5025	5025	5540	4885	5540	5540	5540	5540	5540	5540	3980	3980	4840	4840
600	4730	4730	4730	5040	4595	5040	5040	5040	5040	5040	5040	3760	3760	4640	4640
650	4575	4575	4575	4905	4440	4905	4905	4905	4905	4905	4905	3680	3680	4560	4560
700	4425	4425	4425	4630	4270	4730	4630	4730	4730	4730	4730	3620	3620	4520	4520
750	4230	4230	4230	4230	3970	4430	4230	4430	4430	4430	4430	3560	3560	4430	4430
800	3430	3430	3430	3430	3255	4230	3430	4230	4230	4230	4230	3520	3520	/	/
850	2655	2655	2655	2655	2485	4060	2655	4060	4060	4060	4060	3480	3480	/	/
900	1915	1915	1915	1855	1685	3745	1855	3115	3745	3745	3745	3460	3460	/	/
950	1145	1145	1145	1145	1145	3655	1145	2285	3145	3220	3220	3220	3220	/	/
1000	715	715	715	715	715	1800	715	1655	2115	3030	3030	3030	3030	/	/
1050	/	/	/	/	/	1200	/	1200	1430	3000	3000	3000	3000	/	/
1100	/	/	/	/	/	800	/	830	945	2515	2545	2545	2545	/	/
1150	/	/	/	/	/	545	/	515	630	1855	1970	1970	1970	/	/
1200	/	/	/	/	/	345	/	285	770	1200	1545	1545	1545	/	/
1250	/	/	/	/	/	/	/	/	/	/	1230	1230	1230	/	/
1300	/	/	/	/	/	/	/	/	/	/	970	970	970	/	/
1350	/	/	/	/	/	/	/	/	/	/	800	800	800	/	/
1400	/	/	/	/	/	/	/	/	/	/	630	630	630	/	/
1450	/	/	/	/	/	/	/	/	/	/	485	485	485	/	/
1500	/	/	/	/	/	/	/	/	/	/	345	345	345	/	/

Flange Dimensions - ANSI B16.5 & B16.47



Class	Size	Flg. Dia.	Flg. Thick.	Raised Face Dia.	Drilling			Face Dia.	Ring Joint				
					Bolt Circle Dia.	# of Bolts	Hole Dia.		Pitch Dia.	Grv. Depth	Grv. Width	Btm. Radius	Ring No.
150	2	6.00	0.75	3.62	4.75	4	0.75	4.00	3.250	0.250	0.344	0.03	R22
	2.5	7.00	0.88	4.12	5.50	4	0.75	4.75	4.000	0.250	0.344	0.03	R25
	3	7.50	0.94	5.00	6.00	4	0.75	5.25	4.500	0.250	0.344	0.03	R29
	4	9.00	0.94	6.19	7.50	8	0.75	6.75	5.875	0.250	0.344	0.03	R36
	6	11.00	1.00	8.50	9.50	8	0.88	8.62	7.625	0.250	0.344	0.03	R43
	8	13.50	1.12	10.62	11.75	8	0.88	10.75	9.750	0.250	0.344	0.03	R48
	10	16.00	1.19	12.75	14.25	12	1.00	13.00	12.000	0.250	0.344	0.03	R52
	12	19.00	1.25	15.00	17.00	12	1.00	16.00	15.000	0.250	0.344	0.03	R56
	14	21.00	1.38	16.25	18.75	12	1.12	16.75	15.625	0.250	0.344	0.03	R59
	16	23.50	1.44	18.50	21.25	16	1.12	19.00	17.875	0.250	0.344	0.03	R64
	18	25.00	1.56	21.00	22.75	16	1.25	21.50	20.375	0.250	0.344	0.03	R68
	20	27.50	1.69	23.00	25.00	20	1.25	23.50	22.000	0.250	0.344	0.03	R72
	22	29.50	1.81	25.25	27.25	20	1.38	/	/	/	/	/	/
	24	32.00	1.88	27.25	29.50	20	1.38	28.00	26.500	0.250	0.344	0.03	R76
	26	34.25	2.69	29.50	31.75	24	1.38	/	29.500	0.500	0.781	0.060	R93
	28	36.50	2.81	31.50	34.00	28	1.38	/	31.500	0.500	0.781	0.060	R94
30	38.75	2.94	33.75	36.00	28	1.38	/	33.750	0.500	0.781	0.060	R95	
32	41.75	3.19	36.00	38.50	28	1.62	/	36.000	0.562	0.906	0.060	R96	
34	43.75	3.25	38.00	40.50	32	1.62	/	38.000	0.562	0.906	0.060	R97	
36	46.00	3.56	40.25	42.75	32	1.62	/	40.250	0.562	0.906	0.060	R98	
300	2	6.50	0.88	3.62	5.00	8	0.75	4.25	3.250	0.312	0.469	0.03	R23
	2.5	7.50	1.00	4.12	5.88	8	0.88	5.00	4.000	0.312	0.469	0.03	R26
	3	8.25	1.12	5.00	6.62	8	0.88	5.75	4.875	0.312	0.469	0.03	R31
	4	10.00	1.25	6.19	7.88	8	0.88	6.88	5.875	0.312	0.469	0.03	R37
	6	12.50	1.44	8.50	10.62	12	0.88	9.50	8.312	0.312	0.469	0.03	R45
	8	15.00	1.62	10.62	13.00	12	1.00	11.88	10.625	0.312	0.469	0.03	R49
	10	17.50	1.88	12.75	15.25	16	1.12	14.00	12.750	0.312	0.469	0.03	R53
	12	20.50	2.00	15.00	17.75	16	1.25	16.25	15.000	0.312	0.469	0.03	R57
	14	23.00	2.12	16.25	20.25	20	1.25	18.00	16.500	0.312	0.469	0.03	R61
	16	25.50	2.25	18.50	22.50	20	1.38	20.00	18.500	0.312	0.469	0.03	R65
	18	28.00	2.38	21.00	24.75	24	1.38	22.62	21.000	0.312	0.469	0.03	R69
	20	30.50	2.50	23.00	27.00	24	1.38	25.00	23.000	0.375	0.531	0.06	R73
	22	33.00	2.62	25.25	29.25	24	1.62	27.00	25.000	0.438	0.594	0.06	R81
	24	36.00	2.75	27.25	32.00	24	1.62	29.50	27.250	0.438	0.656	0.06	R77
	26	38.25	3.31	29.50	34.50	28	1.75	31.88	29.500	0.500	0.781	0.06	R93
	28	40.75	3.56	31.50	37.00	28	1.75	33.88	31.500	0.500	0.781	0.06	R94
30	43.00	3.75	33.75	39.25	28	1.88	36.12	33.750	0.500	0.781	0.06	R95	
32	45.25	3.94	36.00	41.50	28	2.00	38.75	36.000	0.562	0.906	0.06	R96	
34	47.50	4.12	38.00	43.50	28	2.00	40.75	38.000	0.562	0.906	0.06	R97	
36	50.00	4.38	40.25	46.00	32	2.12	43.00	40.250	0.562	0.906	0.06	R98	

Flange Dimensions - ANSI B16.5 & B16.47



Class	Size	Flg. Dia.	Flg. Thick.	Raised Face Dia.	Drilling			Face Dia.	Ring Joint				
					Bolt Circle Dia.	# of Bolts	Hole Dia.		Pitch Dia.	Grv. Depth	Grv. Width	Btm. Radius	Ring No.
600	2	6.50	1.00	3.62	5.00	8	0.75	4.25	3.250	0.312	0.469	0.03	R23
	2.5	7.50	1.12	4.12	5.88	8	0.88	5.00	4.000	0.312	0.469	0.03	R26
	3	8.25	1.25	5.00	6.62	8	0.88	5.75	4.875	0.312	0.469	0.03	R31
	4	10.75	1.50	6.19	8.50	8	1.00	6.88	5.875	0.312	0.469	0.03	R37
	6	14.00	1.88	8.50	11.50	12	1.12	9.50	8.312	0.312	0.469	0.03	R45
	8	16.50	2.19	10.62	13.75	12	1.25	11.88	10.625	0.312	0.469	0.03	R49
	10	20.00	2.50	12.75	17.00	16	1.38	14.00	12.750	0.312	0.469	0.03	R53
	12	22.00	2.62	15.00	19.25	20	1.38	16.25	15.000	0.312	0.469	0.03	R57
	14	23.75	2.75	16.25	20.75	20	1.5	18.00	16.500	0.312	0.469	0.03	R61
	16	27.00	3.00	18.50	23.75	20	1.62	20.00	18.500	0.312	0.469	0.03	R65
	18	29.25	3.25	21.00	25.75	20	1.75	22.62	21.000	0.312	0.469	0.03	R69
	20	32.00	3.50	23.00	28.50	24	1.75	25.00	23.000	0.375	0.531	0.06	R73
22	34.25	3.75	25.25	30.62	24	1.88	27.00	25.000	0.438	0.594	0.06	R81	
24	37.00	4.00	27.25	33.00	24	2.00	29.50	27.250	0.438	0.659	0.06	R77	
900	2	8.5	1.5	3.62	6.5	8	1	4.88	3.75	0.312	0.469	0.03	R24
	2.5	9.62	1.62	4.12	7.50	8	1.12	5.39	4.250	0.312	0.469	0.03	R27
	3	9.50	1.50	5.00	7.50	8	1.00	6.12	4.875	0.312	0.469	0.03	R31
	4	11.50	1.75	6.19	9.25	8	1.25	7.12	5.875	0.312	0.469	0.03	R37
	6	15.50	2.19	8.50	12.50	12	1.25	9.50	8.312	0.312	0.469	0.03	R45
	8	18.50	2.50	10.62	15.50	12	1.50	12.12	10.625	0.312	0.469	0.03	R49
	10	21.50	2.75	12.75	18.50	16	1.50	14.25	12.750	0.312	0.469	0.03	R53
	12	24.00	3.12	15.00	21.00	20	1.50	16.50	15.000	0.312	0.469	0.03	R57
	14	25.25	3.38	16.25	22.00	20	1.62	18.38	16.500	0.438	0.656	0.06	R62
	16	27.75	3.50	18.50	24.25	20	1.75	20.62	18.500	0.438	0.656	0.06	R66
	18	31.00	4.00	21.00	27.00	20	2.00	23.38	21.00	0.500	0.781	0.06	R70
	20	33.75	4.25	23.00	29.50	20	2.12	25.50	23.000	0.500	0.781	0.06	R74
24	41.00	5.50	27.25	35.50	20	2.62	30.38	27.250	0.625	1.062	0.09	R78	
1500	2	8.50	1.50	3.62	6.50	8	1.00	4.88	3.750	0.312	0.469	0.03	R24
	2.5	9.62	1.62	4.12	7.50	8	1.12	5.38	4.250	0.312	0.469	0.03	R27
	3	10.50	1.88	5.00	8.00	8	1.25	6.62	5.375	0.312	0.469	0.03	R35
	4	12.25	2.12	6.19	9.50	8	1.38	7.62	6.375	0.312	0.469	0.03	R39
	6	15.50	3.25	8.50	12.50	12	1.50	9.75	8.312	0.375	0.531	0.06	R46
	8	19.00	3.62	10.62	15.50	12	1.75	12.50	10.625	0.438	0.656	0.06	R50
	10	23.00	4.25	12.75	19.00	12	2.00	14.62	12.750	0.438	0.656	0.06	R54
	12	26.00	4.88	15.00	22.50	16	2.12	17.25	15.000	0.562	0.906	0.06	R58
	14	29.50	5.25	16.25	25.00	16	2.38	19.25	16.500	0.625	1.062	0.09	R63
	16	32.50	5.75	18.50	27.75	16	2.62	21.50	18.500	0.688	1.188	0.09	R67
	18	36.00	6.38	21.00	30.50	16	2.88	24.12	21.000	0.688	1.188	0.09	R71
	20	38.75	7.00	23.00	32.75	16	3.12	26.50	23.000	0.688	1.312	0.09	R75
24	46.00	8.00	27.25	39.00	16	3.62	31.25	27.250	0.812	1.438	0.09	R79	
2500	2	9.25	2.00	3.62	6.75	8	1.00	4.48	4.000	0.312	0.469	0.030	R26
	2.5	10.50	2.25	4.12	7.75	8	1.13	5.86	4.375	0.375	0.531	0.060	R28
	3	12.00	2.62	5.00	9.00	8	1.25	6.61	5.000	0.375	0.531	0.060	R32
	4	14.00	3.00	6.19	10.75	8	1.50	7.99	6.188	0.438	0.656	0.060	R38
	5	16.50	3.62	7.31	12.75	8	1.75	9.48	7.500	0.500	0.781	0.060	R40
	6	19.00	4.25	8.50	14.50	8	2.00	10.98	9.000	0.500	0.781	0.060	R47
	8	21.75	5.00	10.62	17.25	12	2.00	13.38	11.000	0.562	0.906	0.060	R51
	10	26.50	6.50	12.75	21.75	12	2.50	16.73	13.500	0.688	1.188	0.090	R55
12	30.00	7.25	15.00	24.38	12	2.75	19.48	16.000	0.688	1.312	0.090	R60	

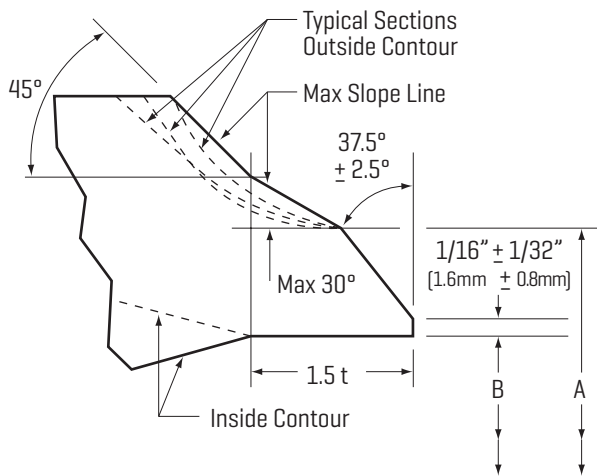
Butt-welding Dimensions - ANSI B16.25

Nominal Pipe Size	Schedule Number or Wall	Outside Diameter (Cast Steel Valves) A		Nominal Inside Diameter B		Machined Inside Diameter C		Nominal Wall Thickness t	
		Inches	mm	Inches	mm	Inches	mm	Inches	mm
3	xxs	3-19/32	91.282	2.300	58.42	2.409	61.19	0.600	15.24
4	xxs	4-5/8	117.48	3.152	80.06	3.279	83.29	0.674	17.12
5	160	5-11/16	144.46	4.313	109.55	4.428	112.47	0.625	15.88
	xxs			4.063	103.20	4.209	106.91	0.750	19.05
6	120	6-25/32	172.34	5.501	139.72	5.600	142.24	0.562	14.27
	160			5.189	131.80	5.327	135.31	0.719	18.26
	xxs			4.897	124.38	5.072	128.83	0.864	21.95
8	100	8-23/32	223.04	7.439	188.93	7.546	191.67	0.594	15.09
	120			7.189	182.60	7.327	186.11	0.719	18.26
	140			7.001	177.83	7.163	181.94	0.812	20.62
	xxs			6.875	174.63	7.053	179.15	0.875	22.23
	160			6.813	173.05	6.998	177.75	0.960	23.01
10	50	10-15/16	277.81	9.564	242.93	9.671	245.64	0.594	15.09
	100			9.314	236.58	9.452	240.08	0.719	18.26
	120			9.064	230.23	9.234	234.54	0.844	21.44
	140			8.750	222.25	8.959	227.56	1.000	25.40
	160			8.500	215.90	8.740	222.00	1.125	28.58
12	60	12-31/32	329.41	11.626	295.30	11.725	297.82	0.562	14.27
	80			11.376	288.95	11.507	292.28	0.688	17.48
	100			11.064	281.03	11.234	284.34	0.844	21.44
	120			10.750	273.05	10.959	278.36	1.000	25.40
	140			10.500	266.70	10.740	272.80	1.125	28.58
	160			10.126	257.20	10.413	264.49	1.312	33.32
14	60	14-1/4	361.95	12.814	352.48	12.921	328.19	0.594	15.09
	80			12.500	317.50	12.646	321.21	0.750	19.05
	100			12.126	308.00	12.319	312.90	0.938	23.83
	120			11.814	300.08	12.046	305.97	1.094	27.79
	140			11.500	292.10	11.771	298.98	1.250	31.75
	160			11.188	284.18	11.498	292.05	1.406	35.71
16	60	16-1/4	412.75	14.688	373.08	14.811	376.20	0.656	16.66
	80			14.314	363.58	14.484	367.89	0.844	21.44
	100			13.938	354.03	14.155	359.54	1.031	26.19
	120			13.564	344.53	13.827	351.21	1.219	30.96
	140			13.124	333.35	13.442	341.43	1.438	36.53
	160			12.814	325.48	13.171	334.54	1.594	40.49
18	40	18-9/32	464.34	16.876	428.65	16.975	431.17	0.562	14.27
	60			16.500	419.10	16.646	422.81	0.750	19.05
	80			16.126	409.60	16.319	414.50	0.938	23.83
	100			15.688	398.48	15.936	404.50	1.156	29.36
	120			15.250	387.35	15.553	395.05	1.375	34.93
	140			14.876	377.85	15.225	386.72	1.562	39.67
	160			14.438	366.73	14.842	376.99	1.781	45.24
20	40	20-5/16	515.94	18.814	477.88	18.921	480.59	0.594	15.09
	60			18.376	466.75	18.538	470.87	0.812	20.62
	80			17.938	455.63	18.155	461.14	1.031	26.19
	100			17.438	442.93	17.717	450.01	1.281	32.54
	120			17.000	431.80	17.334	440.28	1.500	38.10
	140			16.500	419.10	16.896	429.16	1.750	44.45
	160			16.064	408.03	16.515	419.48	1.969	50.01
24	30	24-3/8	619.13	22.876	581.05	22.975	583.57	0.562	14.27
	40			22.626	574.70	22.757	578.03	0.688	17.48
	60			22.064	560.43	22.265	565.53	0.969	24.61
	80			21.564	547.73	21.827	554.41	1.219	30.96
	100			20.938	531.83	21.280	540.51	1.531	38.89
	120			20.376	517.55	20.788	528.02	1.812	46.02
	140			19.876	504.85	20.350	516.89	2.062	52.37
	160			19.314	490.58	19.859	504.42	2.344	59.54

Butt-welding Dimensions - ANSI B16.25

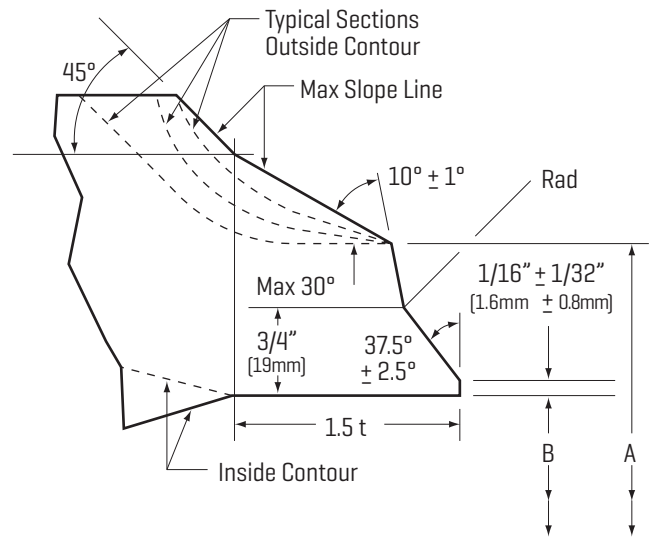
Plain Bevel Butt-welding End for Pipe Wall Thickness is 7/8" [22.23mm] or less.

Welding end details for cast components for use without backing ring or with split backing ring.



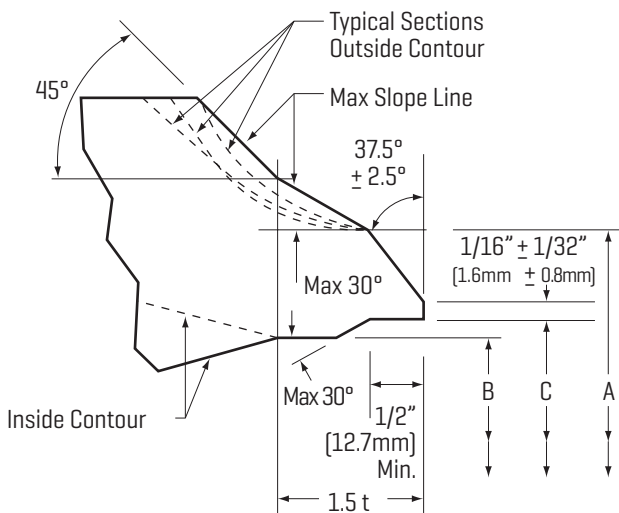
Compound Bevel Butt-welding End for Pipe Wall Thickness Greater than 7/8" [22.23mm].

Welding end details for cast components for use without backing ring or with split backing ring.



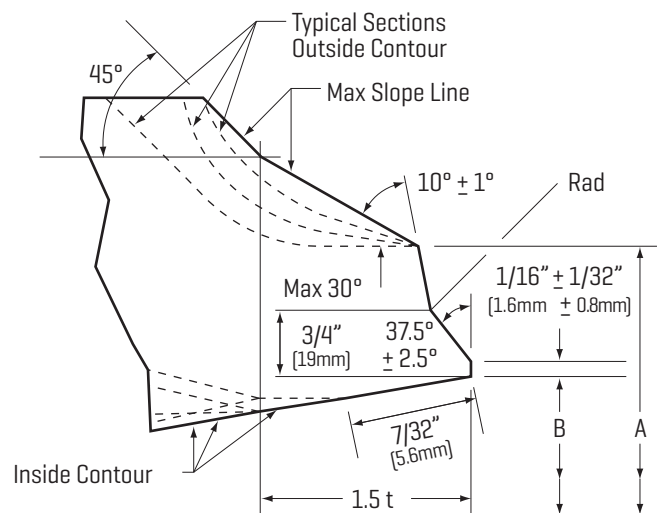
Plain Bevel Butt-welding End for Pipe Wall Thickness is 7/8" [22.23mm] or less.

Welding end details for cast components for use with continuous rectangular or tapered backing ring.



Compound Bevel Butt-welding End for Pipe Wall Thickness Greater than 7/8" [22.23mm].

Welding end details for cast components for use with continuous rectangular or tapered backing ring.



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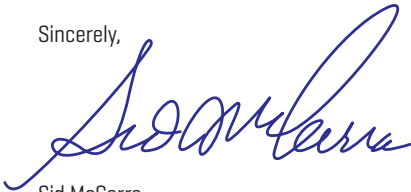
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Sincerely,



Sid McCarra

President

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